



Tottenham Urban District Council.

REPORT

ON THE

Health of Tottenham,

FOR THE YEAR 1909,

BY

J. F. BUTLER-HOGAN,

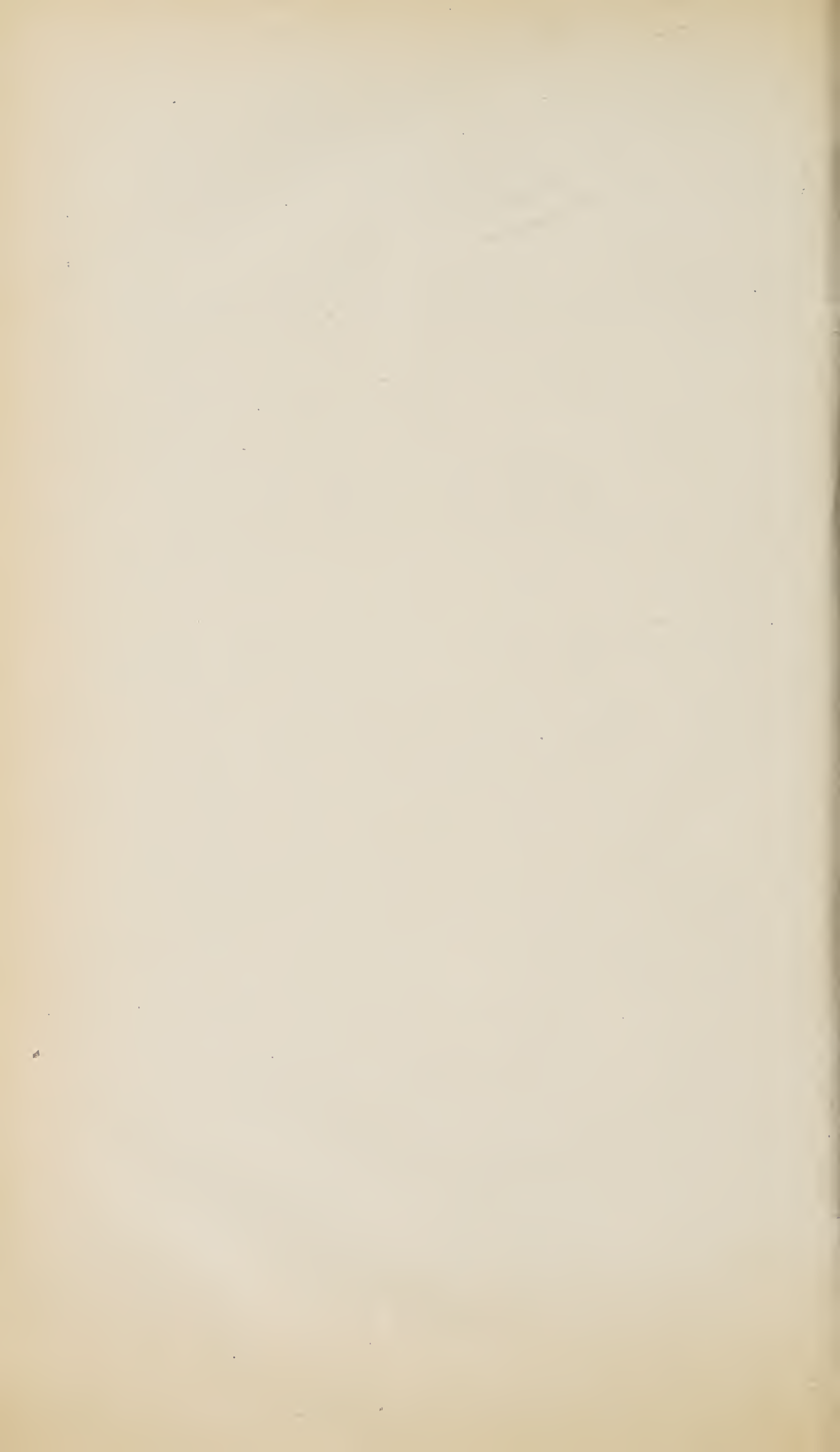
(Bachelor of Arts, Bachelor of Laws and Doctor of Laws (Royal University); Diplomat in Public Health (University of Cambridge); Doctor of Medicine (University of Durham); Doctor of Medicine, Surgery and Accouchments (University of Brussels); Licentiate of the Royal College of Physicians and of the Royal College of Surgeons, Edinburgh, and of the Faculty of Physicians and Surgeons, Glasgow; Barrister-at-Law (Gray's Inn); Fellow, Member of Executive Council, and Examiner, Incorporated Institute of Hygiene; Fellow of the Royal Society of Medicine; Fellow of the Royal Institute of Public Health; Member of the British Medical Association, Royal Sanitary Institute, Society of Medical Officers of Health and Medical Officers of Schools Association, etc.; Exhibitioner in Jurisprudence (Q.C.C.) and in Hygiene (R.C.S. Ed.))

Author of "Sanitary Dwellings," "Common Skin Diseases," "School Hygiene," etc., etc.

Medical Officer of Health.

TOTTENHAM :

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Tottenham Urban District Council.

Public Health Committee :

Chairman :

Councillor C. C. KNIGHT, F.Z.S., M.C.C.

Members :

(Ex-Officio). Councillor W. W. LEWIN, J.P.,

(Chairman of the Council).

(Ex-Officio). Councillor E. T. ELDER,

(Vice-Chairman of the Council).

Councillor P. B. MALONE, J.P.

Councillor A. E. HARVEY.

Councillor C. E. BROWN.

Councillor F. J. HOLLIER.

Councillor E. FROST.

Representatives on the Middlesex Districts Joint Small Pox Hospital Board :

Councillor R. W. BROADBANK.

Councillor P. BUCK.

Councillor C. C. KNIGHT, F.Z.S., M.C.C.

Council's Representative on the Metropolitan Water Board, under the Metropolis Water Act, 1902.

Councillor P. B. MALONE, J.P.

Names of Members on the Council, with respective dates
of retirement.

HIGH CROSS WARD.

1.	THOMAS TREMAIN	...	...	...	...	...	1912
2.	JOHN HURDUS DOBSON	...	...	...	...	...	1912
3.	ALBERT ERNEST HARVEY	...	...	...	...	...	1911
4.	WILLIAM JOHN GEORGE BRESSON	...	...	...	...	...	1911
5.	EDWARD THOMAS ELDER	...	..	...	...	..	1910

MIDDLE WARD.

6.	GEORGE DELBRIDGE BARNES	...	...	...	...	...	1912
7.	JOHN HENRY ENDEAN	...	...	...	...	...	1912
8.	HENRY AVORY KNIGHT, J.P.	..	...	...	...	...	1911
9.	ROBERT WILLIAM BROADBANK	...	...	...	...	...	1910
10.	CHARLES CROSBY KNIGHT	...	...	...	...	...	1910

LOWER WARD.

11.	ISAAC AKKER	...	...	...	...	...	1912
12.	FREDERICK JAMES GOLDING	...	..	...	...	...	1912
13.	JOHN BARKER	...	...	...	...	...	1911
14.	EDWIN FROST	...	...	...	...	...	1910
15.	SAMUEL CHARLES LEWIS	...	...	...	...	...	1910

WEST GREEN WARD.

16.	SAMUEL DASH	...	...	...	...	...	1912
17.	GEORGE WILLIAM ROWLEY	..	...	...	...	...	1911
18.	THOMAS ELDERFIELD	...	..	...	...	...	1911
19.	PHILIP BUCK	...	...	...	...	...	1910
20.	FREDERICK JOSEPH HOLLIER	...	...	...	...	...	1910

HARRINGAY WARD.

21.	LISTER CLEGG	...	...	...	...	...	1912
22.	MARK JOHN SIMS	...	...	...	...	...	1912
23.	WALTER WILLIAM LEWIN	...	...	...	...	...	1911
24.	PATRICK BERNARD MALONE, J.P.	...	..	...	...	...	1911
25.	EDWARD THOROLD GARLAND	...	...	...	...	...	1910

ST. ANN'S WARD.

26.	THOMAS FRANCIS TAYLOR	...	...	...	...	...	1912
27.	CHARLES EDWARD BROWN	...	...	...	...	...	1911
28.	FRANK BROOKING	..	...	...	...	...	1911
29.	WILLIAM JAMES TURRELL	...	...	...	...	...	1910
30.	EVAN OWEN WILLIAMS	...	...	...	...	...	1910

HEADS OF DEPARTMENTS

(Other than the Medical Officer of Health).

Clerical : E. CROWNE, Esq.

Engineering & Surveying :—W. H. PRESCOTT, Esq.

Financial : E. YOUNG, Esq.

Educational : W. MALLINSON, Esq.

PUBLIC HEALTH STAFF.

Male Sanitary Inspectors :

*REDSTON, W.	...	...	Harringay Ward.
(105, Broadwater Road).			
†*PORTMAN, W. C.	...	...	High Cross Ward.
(234, Northumberland Park).			
*WEST, W. P.	...	...	St. Ann's Ward.
(33, Drayton Road).			
*MILLER, H. W.	...	...	Middle Ward.
(117, Sperling Road).			
†*SHILLITO, J. A.	...	...	Lower Ward.
(5, Hartington Tee., Willoughby Lane).			
*SMITH, J. B.	...	...	West Green Ward.
(113, Sperling Road).			

Female Sanitary Inspectors :

ROCHE, Mrs. K. (Cert. San. Insp. Exam. Board).

*NEWTON, Miss M. F. (Cert. San. Insp. Exam. Board)

* The Officials so marked hold the Certificate of the Royal Sanitary Institute.

† Meat Inspector's Cert.

Clerical Staff :

COZENS, A. G., Senior Clerk.

BAKER, S. }
GODDARD, V. } Special Office Clerks.

GARVEY, R., Shorthand and Correspondence Clerk.

Mortuary Attendant :

*A. H. PLUMB, 46, Tynemouth Road.

Disinfectors :

A. PITNEY (Houses).

J. MITCHELL }
H. BYSOUTH } (Clothing).

ADDRESSES OF OTHER PUBLIC OFFICERS.
MORE OR LESS CONNECTED WITH PUBLIC
HEALTH WORK.

Registrars of Births and Deaths :

East Tottenham : Mr. H. J. ROYNON, 664, High Road.

West Tottenham : Mr. E. S. CHAPMAN, 22, Langham Road.

Relieving Officers :

East Tottenham : Mr. A. J. WRAMPLING, 13, Ruskin Road.

West Tottenham : Mr. J. GRAVILLE, 186, West Green Road.

Public Vaccinators :

Dr. W. H. PLAISTER, 632, High Road.

Dr. W. MILLAR, 139, West Green Road.

Dr. W. J. S. EWAN, 99, Philip Lane.

Vaccination Officer :

Mr. H. J. ROYNON, 664, High Road.

Coroner's Officer :

G. T. GILLINGHAM, 9, Arnold Road, Philip Lane.



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INTRODUCTION

TO THE

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH.

PUBLIC HEALTH DEPARTMENT,

TOWN HALL.

TOTTENHAM:

January, 1910.

TO THE CHAIRMAN AND MEMBERS OF THE TOTTENHAM
URBAN DISTRICT COUNCIL.

GENTLEMEN,

I beg to submit my ninth Annual Report, which deals with the sanitary condition and vital statistics of Tottenham during 1909.

The Population, estimated at the middle of the year, amounted to 149,283, showing an increase of 5,900 on that for 1908. The estimate is arrived at by multiplying the number of inhabited houses in the district in May, 1909, by 6·23, the average number of persons per inhabited house as given by the last census. My own opinion is that the result thus reached is in excess of the figure which actually obtains, but the method employed is that most generally used, as well as the most reasonable one which can be applied—during intercensal periods—to rapidly growing districts. Any over or under estimation will, next year, be rectified by the facts disclosed by the coming census.

The General Death Rate for the year, calculated on the above basis of population, was **9·95** per 1,000, which is not only considerably lower than that of 1908, but is, in fact, the lowest that has ever been officially recorded for this district.

The Zymotic Death Rate—that is the death rate from the seven chief infectious diseases—was only **0·60**—another record unsurpassed in the previous Public Health history of Tottenham.

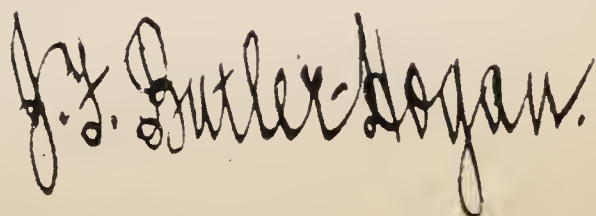
It is, however, **the Infantile Death Rate** which furnishes the most striking and reliable evidence of the steadily maintained improvement in local health conditions during recent years. In the year 1900, out of every 1,000 children born, 169 died within the first year of birth, whereas in 1909, out of every 1,000 born, only 89 died within the twelvemonth, a saving of 80 in every 1,000 lives, and a total saving of 303 during the year under review.

* * * * *

My thanks are due, and hereby tendered, to all who have extended help and encouragement to the efforts of the PUBLIC HEALTH DEPARTMENT during the past year, amongst whom should be specially mentioned the members of the Public Health Committee, my colleagues the chief officers of the Council, and my *confrères* the medical practitioners throughout the district.

I am, Gentlemen,

Faithfully yours,



Medical Officer of Health.

Geographical Position, etc.

Tottenham (the Toteham of Domesday Book) is situated in latitude $51^{\circ} 35' 59''$ N., and in longitude $0^{\circ} 4' 31''$ W. from Greenwich, and is about six miles from Charing Cross. It is bounded on the East by Walthamstow in Essex, from which it is separated by the River Lea, on the West by Hornsey and Wood Green, on the North by Edmonton, and on the South by Hackney and Stoke Newington. The form of the Parish is irregularly trapezoidal. Tottenham is, with one exception, the most populous Urban District in Middlesex, and the number of houses and inhabitants continues to increase at the exceptional rate which characterizes so many London suburbs. For the purposes of local representative government the Parish is divided into six Wards, viz. : Haringay, West Green, St. Ann's, High Cross, Middle and Lower. Every Ward returns five members, thus making the total 30, of which the local Council is composed.

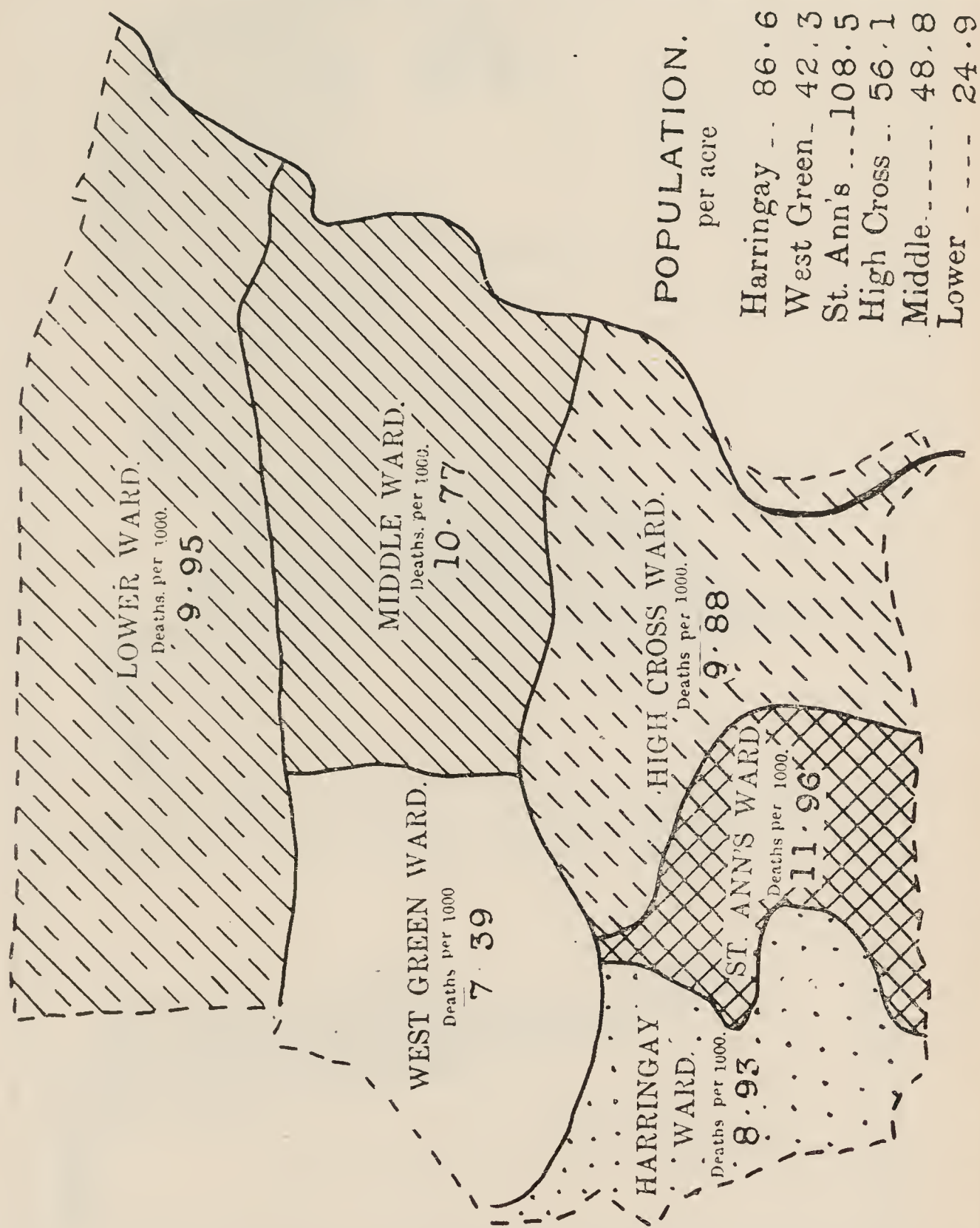
Geology of the District.

The range of chalk hills from Hungerford to Cromer dips gently beneath the sand to the South-east, while the range from Hungerford to Dover dips gently towards the North ; the chalk of the two ranges is connected, passing beneath Middlesex, Essex, Suffolk and Norfolk, and even beyond

them beneath the sea bordering the coast of the three latter counties : we are therefore to conceive the whole of this tract to be situated in a vast hollow in the chalk, which is geologically termed the chalk basin of London. The layer of sand which passes above this chalk from Hungerford to Dover is the very sand from which rises the water which supplies the wells of Tottenham. The fact appears to be that the water which falls on the sand where it is superficial (from Hungerford to within some distance of Tottenham), together with that which passes into it from the chalk, percolates the stratum of sand underlying the clay ; hence where an opening is made through the clay, the water rises nearly or quite to the surface, on the principle of seeking its level—the level of the sand at the foot of the chalk hills, and of the clay at Tottenham being nearly the same (see Geological Map). The sand lies in a hollow in the chalk and the clay in a hollow in the sand. That both have been deposited by the sea there is the most conclusive evidence, indeed sea shells are found in both. In many parts of the parish red clay or loam, fit for bricks and pottery work, is still found—even as in ancient times—reminding us of the old poem of the “Tournament of Tottenham,” where we find that Perkyn the hero, who carried away Tibbe as his bride, was a potter, and lived by that trade in Tottenham.

It will be seen—on reference to the section of the well supplying the Municipal Buildings—that the yellow clay forming the surface of the ground at this part of the Parish extends to a depth of eight feet, when it is succeeded by a layer of brown clay having twice that depth, that this in turn

is succeeded by layers of blue and other coloured clays having altogether a depth of about 100 feet; a seven feet layer of sand and pebbles is then reached, succeeded by a 30 feet layer of dead sand, and then by a small three feet layer of sand and pebbles, which has underneath it another layer of sand 14 feet in depth, which rests upon the chalk where the water supply was found and tapped: the depth of the well is 453 feet.

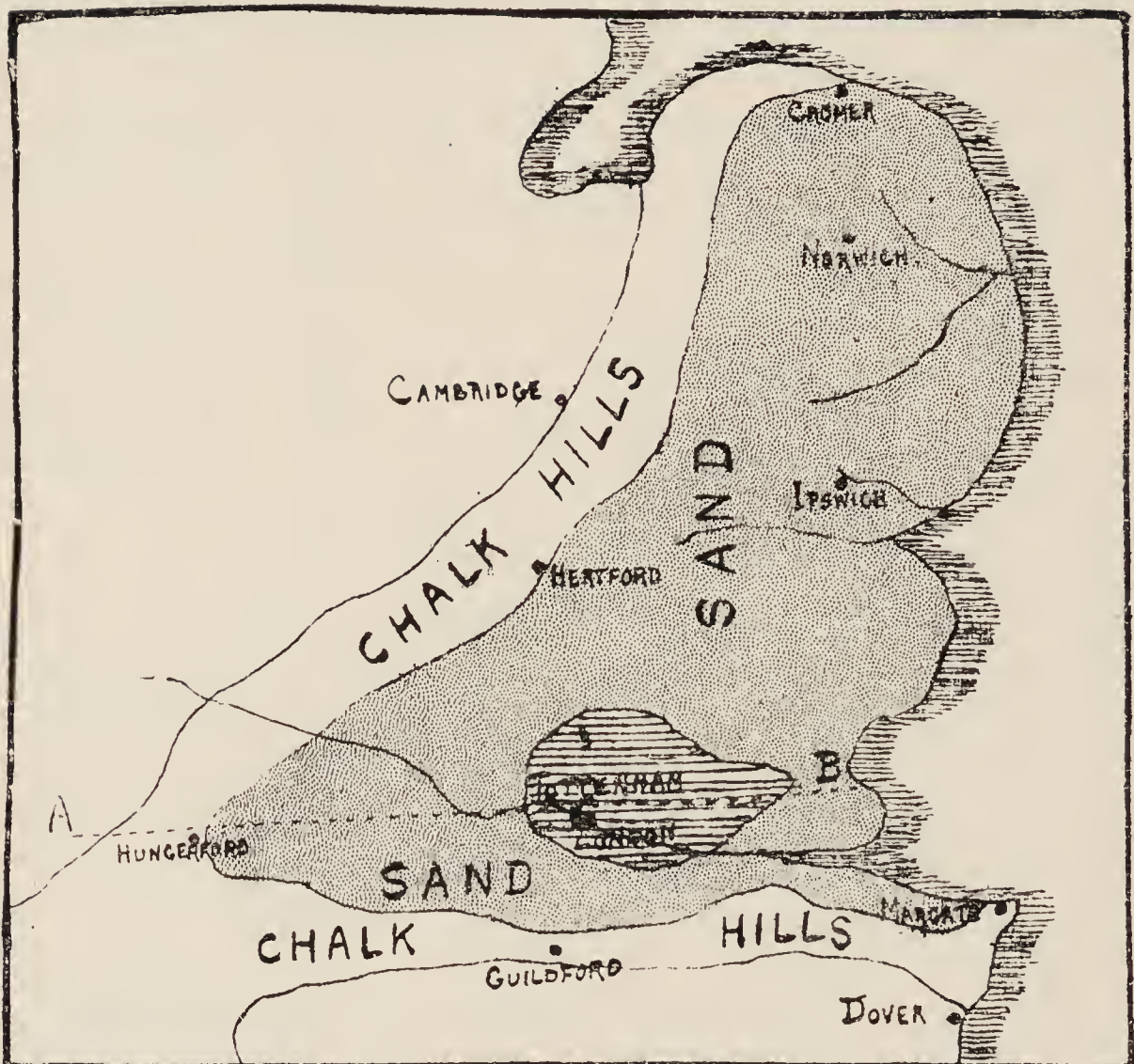


POPULATION.

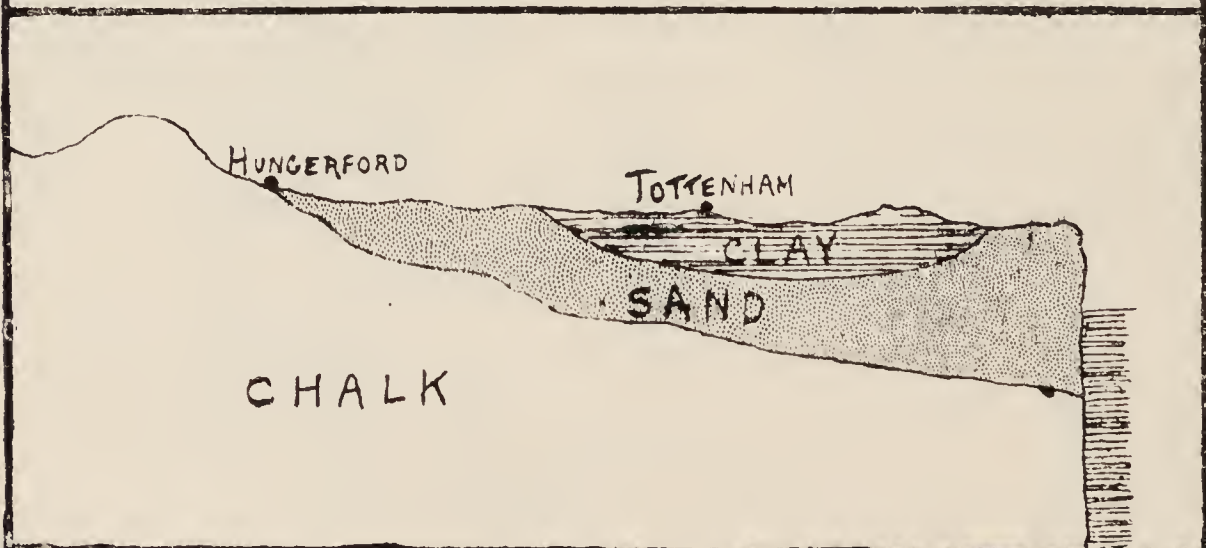
per acre

Harringay	86.6
West Green	42.3
St. Ann's	108.5
High Cross	56.1
Middle	48.8
Lower	24.9

GEOLOGICAL MAP.

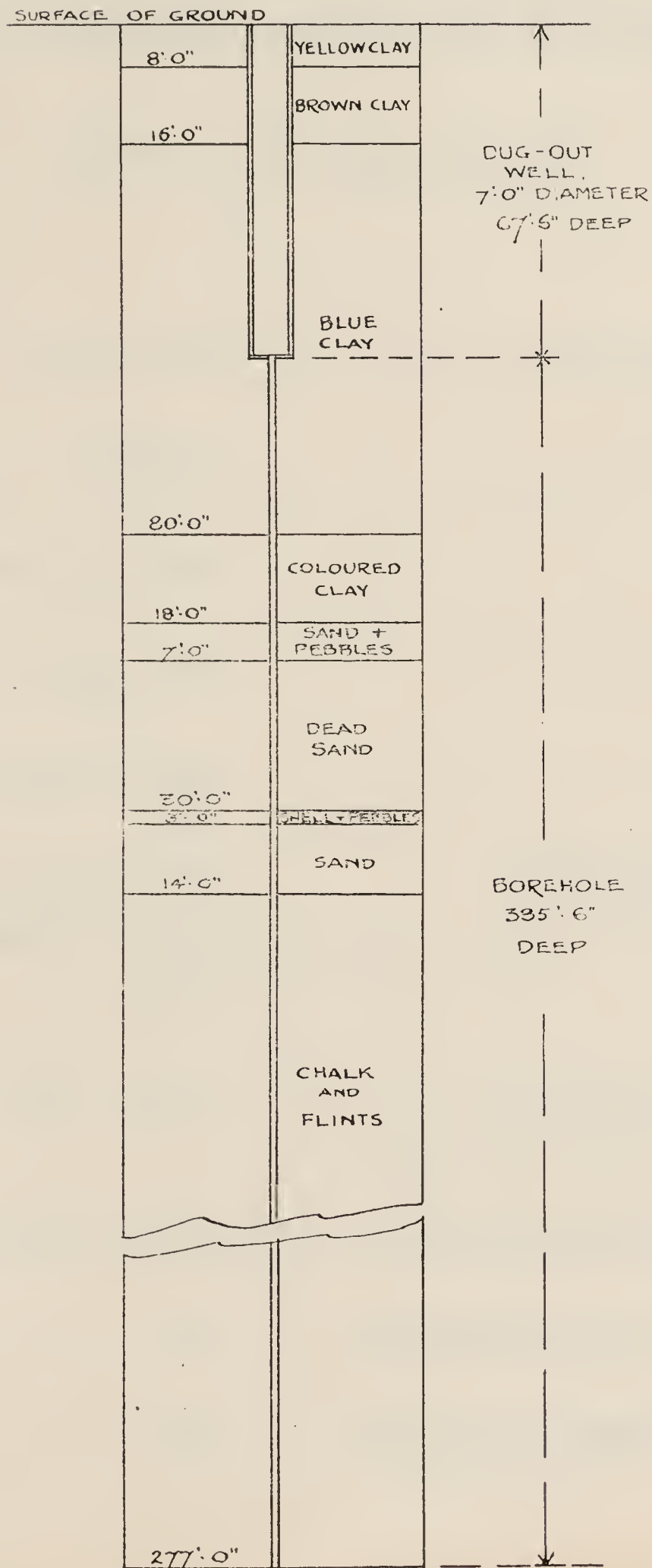


SKETCH OF THE COUNTRY SURROUNDING TOTTENHAM



SECTION IN THE DIRECTION OF THE LINE A.B., ABOVE.

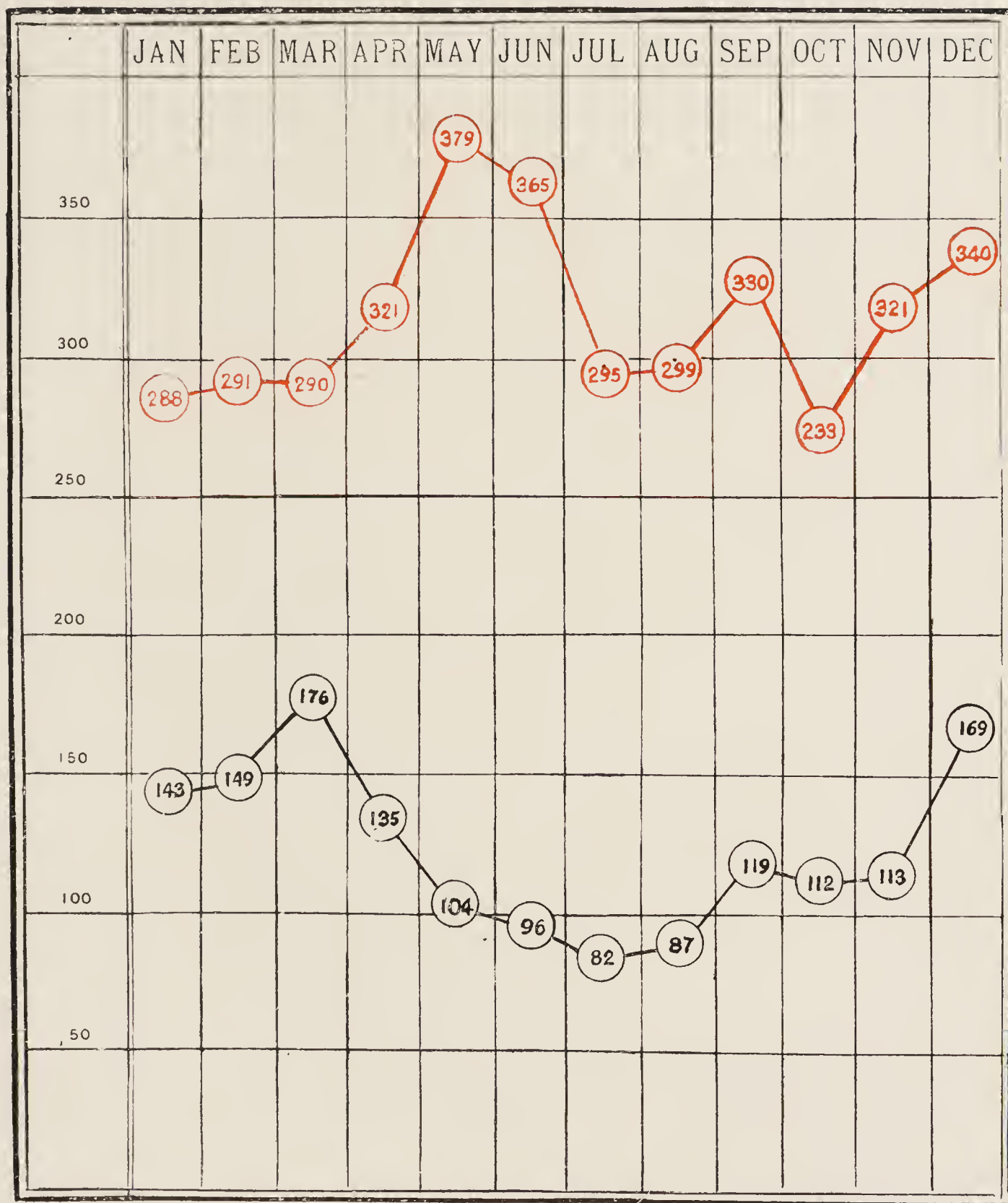
TOTTENHAM MUNICIPAL BUILDINGS.
SECTION OF WELL.



Summary of the more Important Vital Statistics for 1909.

Area of District	...	...	3033 acres.
Population	...	...	149,283.
Density	...	...	49·21 persons per acre.
Births	...	...	3791 (Birth Rate 25·39).
Deaths	...	...	1485 (Death Rate 9·95).
Infantile Mortality	...	...	336 Deaths under 1 year, equal to 88·6 per 1000. Births.
Zymotic Death Rate...	...		0·6 per 1000
(7 principal Zymotic Diseases).			
Death Rate from Phthisis	...		·46 per 1000 (as compared with ·49 in 1908.)
Death Rate from Diarrhoea...	·12	„ „	(as compared with ·34 in 1908.)
Death Rate from Typhoid	·006	„ „	(as compared with ·04 in 1908.)

*Chart showing incidence of Births and Deaths in Tottenham
during the different months of 1909.*



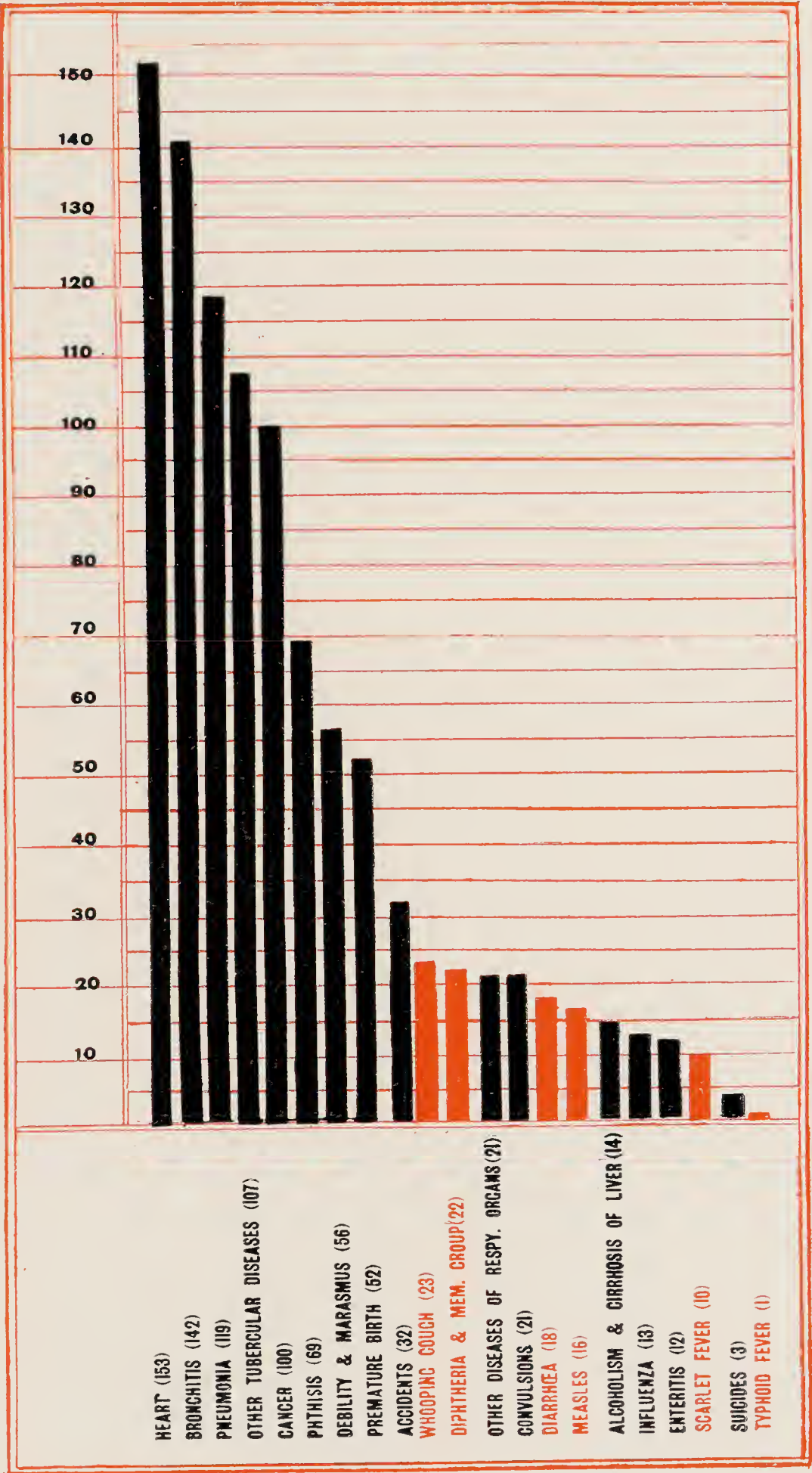
Births

—

Deaths

—

*Chart showing chief causes of Death in Tottenham,
the recognised infectious diseases being coloured in
red and the other diseases in black.*



GENERAL DISTRICT STATISTICS.

RATES AND RATABLE VALUE.

DATE. Half Year ending.	Amount of Rates in the £.		Amount produced by a 1d. Rate. (General).	Ratable Value.
	G. D. R.	W. R.		
			£	£
September, 1900 ...	1/10	9d.	1,332	375,659
March, 1901 ...	1/9	11d.	1,387	389,695
September, 1901 ..	2/-	10d.	1,416	401,486
March, 1902 ...	1/11	9d.	1,467	414,559
September, 1902 ...	2/6	6d.	1,532	431,505
March, 1903 ...	2/4	7d.	1,599	453,247
September, 1903 ...	2/4	7d.	1,613	454,145
March, 1904 ...	2/3	6d.	1,678	478,644
September, 1904 ..	2/3	*3d.	1,709	478,492
March, 1905 ...	2/2	—	1,727	483,360
September, 1905 ...	2/2	—	1,772	493,517
March, 1906 ...	2/-	—	1,803	502,360
September, 1906 ..	2/-	—	1,850	509,081
March, 1907 ...	1/11	—	1,856	512,826
September, 1907 ...	2/2	—	1,850	518,430
March, 1908 ...	2/2	—	1,875	546,141
September, 1908 ...	2/3	—	1,890	533,349
March, 1909 ...	2/6	—	1,895	536,220
September, 1909 ..	2/6	—	1,900	543,079
March, 1910 ...	2/4	—	1,902	544,660

* To June 24th, 1904, only.

POPULATION.

It will be seen from the figures quoted in the "Introduction," that the estimated increase in population during 1909 amounted to 5,900. The population of Tottenham at the 1881 census was 46,441; in 1891 it was 97,166, and in 1901 it amounted to 102,531, showing an increase of about 25,000 in the earlier and of more than 31,000 in the later decade.

The **Natural** increase of the population, that is the excess of births over deaths, during the year, was 2,306.

Acreage of Tottenham, 3,033.

Year.			Houses.			Inhabited houses.				Population.
1801	..	...	647	...	...	—	...	...	...	3,622
1811	...	...	831	...	...	—	...	...	...	4,771
1821	...	...	976	...	..	—	...	...	...	5,812
1831	..	...	1,298	...	..	—	...	...	...	7,964
1841	...	...	1,466	...	...	—	...	...	...	8,584
1851	...	...	1,682	...	...	—	...	...	...	9,120
1861	...	...	2,441	...	...	—	...	...	...	13,239
1871	...	...	4,154	...	...	—	...	...	...	22,869
1881	...	...	7,711	...	...	—	...	...	...	46,441
1891	..	...	16,273	...	...	—	...	...	...	97,166
1901	...	...	17,976	...	...	16,441	...	...	...	102,531
1902	...	...	18,536	...	...	17,341	...	...	...	107,003
1903	...	...	19,837	...	..	18,908	...	...	...	117,797
1904	...	...	20,667	...	...	19,467	...	...	...	121,279
1905	...	...	21,254	...	...	19,924	...	...	...	124,126
1906	...	...	23,613	...	...	21,606	...	...	...	134,605
1907	...	..	24,536	..	..	22,350	...	..	..	139,240
1908	...	...	25,230	...	...	23,015	...	..	..	143,383
1909	...	...	26,186	...	...	23,962	...	...	...	149,283

(The figures up to 1901 **include** Wood Green).*Return of Houses, Population, etc., at Midsummer, 1909.*

Ward.	Acreage.	Total No. of Houses.	Inhabited Houses.	Empty Houses.	Other build- ings.	Estimated Population.	Ratable Value.
High Cross ...	460	4,427	4,140	287	123	25,792	£ 95,555
Middle, West	} 640 {	2,812	2,605	207	69	} 31,256 {	41,141
Middle, East		2,578	2,412	166	59		52,178
Lower ...	950	4,210	3,790	420	110	23,612	110,330
West Green...	471	3,601	3,211	390	59	20,004	68,805
Harringay ...	266	3,894	3,520	374	198	21,930	98,758
St. Ann's ...	246	4,664	4,284	380	120	26,689	76,312
Totals ...	3,033	26,186	23,962	2,224	738	149,283	543,079
			26,186				

BIRTHS.

3791 Births were registered in Tottenham during the year; of those, 1923 were males and 1868 females. The Birth Rate accordingly amounted to 25·39 per 1,000 of the population, which is less by ·95 than the rate that obtained for 1908, so that Tottenham again shares in the downward tendency of the Birth Rate prevailing throughout England.

72 of the 3791 children born had died within a week, and 124 before the first month of life had been completed; in 1908 the corresponding figures were 75 and 125, and in 1907 they were 76 and 146 respectively. There were 59 illegitimate births, as compared with 74 in 1908, 57 in 1907, 61 in 1906, and 65 in 1905; the percentage of illegitimate births therefore amounted to 1·5 for 1909.

The seventy-first Annual Report of the Registrar-General shows that the total number of births registered in England and Wales during 1908 was 940,383; of those, 902,852 were legitimate and 37,531 were illegitimate; the total birth rate therefore for the country as a whole was 26·5 per 1,000 living, which is 0·2 per 1,000 above that recorded in 1907, but 1·6 per 1,000 below the average of the rates for the 10 years 1898-1907. The highest recorded Birth Rate for the country at large was that of 1876, when it amounted to 36·3 per 1,000 living; since that year, however, the ratio has, "with a few insignificant exceptions" fallen year by year until in 1907 it reached the low level of 26·3 per 1,000.

The Notification of Births Act, which came into operation in Tottenham on January 21st, 1908, has been only a partial success, for partly by reason of the intrinsic defects of that

measure, and partly on account of ignorance and prejudice, only about 84 per cent. of the births which actually occurred were notified to me, that is to say, out of the 3,791 births which took place, we received intimation concerning 3,189. The number notified by Doctors was 593, by Midwives 1,767, and by fathers, relatives or friends 829.

The following tables show the number of births which took place during the year in the various Wards, the percentage of births to total population, and the Birth Rates in the various Wards.

Ward.	Births.	Percentage to Population.
Harringay	535	2·4
West Green	481	2·4
St. Ann's	788	2·9
High Cross	666	2·4
Middle	764	2·9
Lower	557	2·3
Total	3791	2·5

Quarterly Return of Births for the different Wards (1909).

	Harrin- gay.	West Green.	St. . Ann's.	High Cross.	Middle.	Lower.	Total.
March	139	112	184	178	187	137	937
June	144	114	217	169	221	131	996
September	116	133	176	157	186	156	924
December	136	122	211	162	170	133	934
	535	481	788	666	764	557	3791

Table showing number of Births in 1909 and Birth Rates—in Wards.

Ward.	No. of Births.	Population.	Rate.
Harringay	535	21,930	24·395
West Green	481	20,004	24·045
St. Ann's	788	26,689	29·525
High Cross	666	31,256	21·307
Middle	764	25,792	29·621
Lower	557	23,612	23·589
Total	3791	149,283	25·394

Table showing number of Births and Deaths in District during the year 1909, in quarters.

				Births.	Deaths.
Quarter to 31st March	...	...	Males	478	229
			Females	459	239
.. 30th June	...	...	Males	522	177
			Females	474	158
.. 30th September	...	...	Males	439	147
			Females	485	141
.. 31st December	...	...	Males	484	198
			Females	450	196
Total				1923	751
				1868	734
				3791	1485

ENGLAND AND WALES (1909)

Annual Birth-rates, Death-rates, and the Death-rates from the Principal Epidemic Diseases.

(PROVISIONAL FIGURES.)

	Annual Rates per 1,000 living.				Deaths under one year to 1,000 Births.
	Births.	Deaths.		Principal Epidemic Diseases.	
		Crude.	Corrected.*		
England and Wales ...	25·6	14·5	14·5	1·12	109
76 great Towns ...	25·7	14·7	15·6	1·42	118
143 smaller Towns ...	24·8	13·9	14·5	1·08	111
England and Wales less the 219 Towns)	25·6	14·5	13·6	0·80	98

* The corrected death-rates are the rates which would have been recorded had the age and sex constitution of the populations of the several areas been identical with that of England and Wales as enumerated in 1901.

Male and Female Births and Deaths Registered in the Fifty-second Week of each of the Seven Years 1903-1909.

			1903	1904	1905	1906	1907	1908	1909
Births...	London ...	Total Births ..	2828	2320	1807	1694	1548	1438	2182
		Males	1454	1200	937	871	824	703	1137
		Females ...	1374	1120	870	823	724	735	1045
	Tottenham	Total Births ...	73	61	48	43	25	67	74
		Males	32	26	20	18	10	26	38
		Females ...	41	35	28	25	15	41	36
Deaths	London ..	Total Deaths	1866	1868	1602	1850	1326	1038	1502
		Males	957	939	796	909	689	515	773
		Females ..	909	929	806	941	637	523	729
	Tottenham	Total Deaths	45	28	27	42	18	38	35
		Males	16	11	11	18	12	19	13
		Females ...	17	17	16	24	6	19	22

Excess of Births over Deaths for the last 10 Years.

Years.	Population.	Excess.
1900	98,268	1427
1901	102,531	1629
1902	107,003	1964
1903	117,797	2208
1904	121,279	2176
1905	124,126	2033
1906	134,605	2001
1907	139,240	2153
1908	143,383	2197
1909	149,283	2306

*Births and Birth Rates, General Death Rates and Zymotic Disease Death Rates
for the Towns named.*

TOWN.	Estimated population to middle of 1909.	Births.	Deaths.	Annual Rate per 1,000 living.		
				Births.	Deaths.	Principal Zymotic Diseases.
Tottenham	149,283	3,791	1,485	25·3	9·9	0·6
West Ham	321,767	8,734	4,425	27·1	13·7	2·1
Brighton	130,926	2,666	2,004	20·3	15·2	0·6
Portsmouth	214,726	5,820	3,055	27·1	14·2	1·3
Southampton	124,667	2,938	1,660	23·5	13·3	1·0
Norwich... ..	124,136	3,004	1,727	23·3	13·9	1·5
Plymouth	124,180	2,586	1,659	20·8	14·5	1·1
Birmingham	563,629	14,980	8,667	26·5	15·4	1·9
Nottingham	263,443	6,746	4,278	25·6	16·2	1·6
Birkenhead	121,123	3,722	1,926	30·7	15·9	1·1
Liverpool	760,357	23,586	14,439	31·0	19·0	2·0
Bolton	187,824	4,635	2,842	30·0	15·1	1·0
Manchester	655,435	18,197	11,708	27·7	17·9	1·8
Salford	241,950	6,724	4,342	27·7	17·9	2·4
Oldham	143,301	3,912	2,727	27·3	19·2	1·0
Blackburn	136,959	3,128	2,222	22·8	16·2	1·4
Preston	118,519	3,034	1,871	25·6	15·8	1·2
Bradford	293,983	5,507	4,261	18·7	14·5	0·6
Sheffield... ..	470,958	13,236	7,007	28·1	15·0	1·7
Hull	275,552	8,077	4,116	29·3	14·9	1·3
Sunderland	159,378	4,659	2,693	29·2	16·9	1·9
Newcastle-on-Tyne ...	281,584	7,677	4,166	27·2	14·8	1·3
Dublin	398,356	11,407	8,319	28·6	20·2	1·5
Belfast	386,576	10,900	7,028	28·4	18·2	1·2
76 Great Towns ...	16,445,281	422,045	240,863	25·6	14·6	1·3

DEATHS.

The total number of Deaths registered was 1387 (700 males, 687 females): from this figure, however, 201 has to be deducted, as that number represents the deaths of non-residents occurring in our Public Institutions, which leaves 1,186 deaths of *residents* registered in the District: to this number, however, has to be added 299 Tottenham deaths which occurred outside the boundaries of the Parish*. The number of deaths, therefore, on which the death rate has to be calculated, amounts to 1,485, which, with an estimated population of 149,283, gives an annual death rate of 9·9 per 1,000, which may be fairly regarded as a very satisfactory one indeed. The male (Tottenham) deaths totalled 751 and the female 734. The following was the death distribution in age groups:—

Deaths under 1 year	...	...	...	336
.. from 1—5 years	...	...	...	146
.. .. 5—15 ..	...	...	...	71
.. .. 15—25 ..	...	...	...	61
.. .. 25—65 ..	...	...	...	513
.. .. 65 upwards	...	...	...	358

N.B.—It is necessary in making comparisons between the death rate of Tottenham and that of other places to consider the *age and sex* distribution of the population. Those districts in which the proportion of males to females or of young persons to old persons is different to that of other places and the country generally, will have their death rate affected by such age and sex distribution. To eliminate the

* Several deaths (from various diseases) which do not properly belong to us, and which took place in Public Institutions elsewhere, have been debited to this district because the deceased persons lived in Tottenham “many years ago.”

so-called error due to age and sex distribution varying from that of the whole country, the number of males and females in the district at each age period being known at the last census, and the mean annual death rates for each sex and every age period being given by the Registrar-General for the 10 years 1891—1900, we must calculate the number of deaths which should take place in each class, if the local death rate were the same as that for the whole country. The “Standard Death Rate” means the rate at all ages calculated on the assumption that the rates for each sex at every one of the 12 age periods were in every town the same as in England and Wales during the 10 years 1891—1900, the rate at all ages in England and Wales during that period having been 18·21 per 1,000. The “factor for correction” is obtained by dividing the standard death rate in England and Wales by the standard death rate in every town, and is the figure by which the recorded death rate should be multiplied in order to correct for variations of age and sex distribution. The death rate obtained by multiplying the recorded death rate by the factor for correction is termed the “corrected death rate.” The “comparative mortality figure” represents the corrected death rate in every town compared with the recorded death rate at all ages in England and Wales taken as 1,000. Tottenham’s factor for correction is 1·079. Calculating in the above manner from the return of the Registrar-General for 1903, which gives the recorded death rate of Tottenham as 13·0, we find that the standard death rate in that year amounted to 14·03 (that is 13·0 multiplied by 1·079). In a similar manner the corrected death rate for 1904 amounted to 14·96, for 1905 to 13·77, and for 1906 to 12·42, while according

to the same method of calculation, Tottenham's corrected death-rate for 1907 (taking the population as estimated by the Medical Officer of Health) was 12·84 and for 1908, 11·89. Thus, since the recorded death rate for 1909 was 9·9, the corrected death rate would amount to 10·69 (9·9 multiplied by 1·079).

Quarterly Return of Deaths for the different Wards (1909).

	Harrin- gay.	West Green.	St. Ann's.	High Cross.	Middle.	Lower.	Total.
March... ..	62	43	110	95	85	73	468
June	44	27	54	81	80	49	335
September ...	39	36	62	54	46	51	288
December ...	51	42	93	79	67	62	394

Table showing Infantile Deaths for every quarter of 1909—in Wards.

	Harrin- gay.	West Green.	St. Ann's.	High Cross.	Middle.	Lower.	Total.
March... ..	12	4	16	23	17	16	88
June	7	8	11	26	19	7	78
September ...	8	10	17	13	11	11	70
December ...	11	9	26	19	20	15	100
	38	31	70	81	67	49	336

*Table shewing number of Deaths from Special Diseases during every
Quarter of 1909.*

Ward.		Small Pox.	Scarlet Fever.	Diphtheria & Membr. Croup.	Enteric.	Phthisis	Measles.	Whooping Cough.	Diarrhoea.	Total.
Harringay.	March ...	...	1	3	...	2	3	1	...	10
	June ...	...	...	2	...	1	...	1	...	4
	September ...	...	...	1	...	4	...	...	...	5
	December ...	...	1	...	...	2	1	1	...	5
	Ward Total...	...	2	6	...	9	4	3	...	24
West Green.	March ...	...	1	...	...	...	...	1	...	2
	June ...	...	...	...	...	1	1	...	...	2
	September ...	...	...	...	...	5	1	...	3	9
	December ...	...	...	...	...	2	...	...	...	2
	Ward Total...	...	1	...	...	8	2	1	3	15
St. Ann's.	March ...	...	1	3	...	3	2	3	...	12
	June ...	...	...	1	...	2	1	1	...	5
	September ...	...	...	...	...	5	...	...	5	10
	December ...	...	...	2	...	7	...	5	1	15
	Ward Total...	...	1	6	...	17	3	9	6	42
High Cross.	March ...	...	...	1	1	1	4	1	...	8
	June ...	...	1	...	...	6	...	5	1	13
	September ...	...	...	...	...	4	...	...	3	7
	December ...	...	...	2	...	5	...	...	2	9
	Ward Total...	...	1	3	1	16	4	6	6	37
Middle.	March ...	...	2	...	...	2	2	...	...	6
	June ...	...	2	1	...	3	...	1	...	7
	September ...	...	1	...	...	3	...	...	1	5
	December ...	...	...	2	...	5	...	1	...	8
	Ward Total...	...	5	3	...	13	2	2	1	26
Lower.	March ...	...	...	1	...	2	1	...	...	4
	June ...	...	...	...	...	1	...	1	...	2
	September ...	...	...	2	...	1	...	1	2	6
	December ...	...	...	1	...	2	...	...	...	3
	Ward Total...	...	...	4	...	6	1	2	2	15
	Whole District Total ...	...	10	22	1	69	16	23	18	159

Table showing number of Deaths in 1909 and Death Rates—In Wards.

Ward.	No. of Deaths.	Population.	General Death Rate.	Infantile Mortality per 1000 of the Population.	Infantile Mortality per 1000 Births.
Harringay	196	21,930	8.93	1.7	71.0
West Green... ..	148	20,004	7.39	1.4	64.4
St. Ann's	319	26,689	11.96	2.6	88.8
High Cross... ..	309	31,256	9.88	2.5	121.4
Middle	278	25,792	10.77	2.6	87.6
Lower	235	23,612	9.95	2.7	87.9
Total	1,485	149,283	9.95	2.2	88.63

Comparison of Tottenham's General and Zymotic Death Rates for different Quadrennial Periods, beginning with the last four decades.

	General Death Rate.	Zymotic Death Rate.
1876	16.8	1.8
1877	15.7	2.0
1878	17.5	3.0
1879	17.5	2.1
1886	16.5	3.4
1887	14.1	2.6
1888	15.1	3.3
1889	15.0	1.6
1896	13.2	2.5
1897	13.6	2.1
1898	14.6	2.3
1899	15.1	2.0
1906	12.4	2.1
1907	11.9	1.1
1908	11.0	1.0
1909	9.9	0.6

Table showing the Annual Deaths and Death Rates from Special Diseases during the Quinquennium, 1905-1909.

Disease	1905		1906		1907		1908		1909	
	No. of Deaths.	Rate per 1000	No. of Deaths.	Rate per 1000	No. of Deaths.	Rate per 1000	No. of Deaths.	Rate per 1000	No. of Deaths.	Rate per 1000
Small Pox ...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ..	5	·04	18	·134	10	·07	13	·09	10	·06
Diphtheria ...	17	·136	12	·088	12	·08	19	·13	22	·14
Typhoid Fever .	6	·04	5	·037	4	·02	6	·04	1	·006
Measles	9	·072	44	·326	40	·28	47	·32	16	·10
Diarrhœa ...	39	·31	182	1·352	37	·26	50	·34	18	·12
Phthisis ...	85	·68	75	·55	68	·48	71	·49	69	·46
Whooping Cough	58	·46	23	·170	53	·38	9	·06	23	·15
Puerperal Fever	2	·016	5	·037	3	·02	4	·02	4	·02
Cancer	95	·76	78	·57	89	·63	94	·65	100	·66

Table showing Population, and General and Zymotic Death Rates in the last Six Census Years, compared with 1909.

Year.	Population of Tottenham.	Death Rate from all causes.	Death Rate per 1000 from 7 principal Zymotic Diseases.
1851	9,120	17·6	3·6
1861	13,875	19·3	3·4
1871	22,857	20·6	4·7
1881	46,441	16·9	2·8
1891	70,294	15·9	1·7
1901	103,243	14·6	3·7
1909	149,283	9·95	·60

Weekly Return of Deaths registered in Tottenham.

Week ending			Males	Females	Week ending			Males	Females
Jan.	9	...	21	17	July	10	...	6	8
..	16	...	14	19	..	17	...	16	11
..	23	...	8	19	..	24	...	5	8
..	30	...	21	18	..	31	...	11	8
Feb.	6	...	19	18	Aug.	7	...	10	9
..	13	...	24	16	..	14	...	9	13
..	20	...	9	16	..	21	...	9	11
..	27	...	20	25	..	28	...	9	7
Mar.	6	...	16	17	Sept.	4	...	10	10
..	13	...	18	17	..	11	...	14	7
..	20	...	21	17	..	18	...	11	15
..	27	...	21	17	..	25	...	16	4
April	3	...	14	13	Oct.	2	...	10	12
..	10	...	29	11	..	9	...	18	15
..	17	...	17	19	..	16	...	15	10
..	24	...	9	20	..	23	...	9	8
May	1	..	14	10	..	30	...	13	10
..	8	...	14	6	Nov.	6	...	10	12
..	15	...	16	6	..	13	...	14	11
..	22	...	9	11	..	20	...	12	13
..	29	..	8	14	..	27	...	14	12
June	5	..	11	12	Dec.	4	...	20	19
..	12	...	6	11	..	11	...	13	17
..	19	...	10	11	..	18	...	15	15
..	26	...	8	10	..	25	...	13	22
July	3	...	8	8	..	31	...	13	22

NOTE.—201 of the above are deaths of persons belonging to other districts.

*General, Zymotic and Special Disease Death Rates for every year of the
Decennium 1900—1909.*

Year.	Births.	Deaths.	Zymotic Diseases.	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Enteric Fever	Diarrhoea.	Cancer.	Infantile Mortality.
1900	31·4	16·0	2·27	...	·39	·06	·21	·61	·10	·9	·48	162
1901	30·7	13·8	1·7	...	·2	·12	·25	·19	·2	·34	·77	132
1902	31·6	14·5	2·29	·69	·23	·13	·34	·38	·18	·34	·39	124
1903	32·3	13·0	1·89	...	·71	·04	·16	·53	·08	·37	·37	124
1904	31·8	13·9	2·1	·01	·36	·07	·2	·16	·06	1·28	·42	139
1905	30·9	12·8	1·31	...	·09	·04	·16	·54	·05	·43	·76	117
1906	27·29	12·4	2·1	...	·326	·13	·088	·17	·037	1·35	·57	128
1907	27·4	11·9	1·1	...	·28	·07	·08	·38	·02	·26	·64	100·0
1908	26·34	11·02	1·00	...	·32	·09	·13	·06	·04	·34	·65	95·55
1909	25·39	9·95	·60	...	·10	·06	·14	·15	·006	·12	·66	88·63

THE CHIEF INFECTIOUS DISEASES

And Statistics relating thereto.

SMALL POX.

2 cases of the disease occurred in the district during the year, both of which were discovered by myself, and promptly removed to the Isolation Hospital at South Mimms, all contacts being at the same time vaccinated or re-vaccinated as the occasion required. I might add that 2 other cases subsequently developed in the same house, 3 days after the close of the year, and that they, too, were duly isolated. The disease was undoubtedly imported from Warsaw, and we may fairly congratulate ourselves in Tottenham upon our success in preventing the disease spreading beyond the house in which it first occurred, more especially when we consider the populous character of the neighbourhood and the yearly

increasing percentage of un-vaccinated persons in our midst.

The Annual Return supplied me by the Vaccination Officer shows that of the 3,791 children born, only 2,254 were vaccinated: moreover, the number of declarations received from those having conscientious objections was 520, as compared with from 80 to 90 under the former Vaccination Act.

SCARLET FEVER.

596 notifications of Scarlet Fever reached me, although there were only 569 actual cases, the remaining 27 having been instances either of dual notification or mistaken diagnosis. 10 cases terminated fatally, giving a mortality of $\cdot 06$, as compared with $\cdot 09$ for 1908, $\cdot 07$ for 1907, $\cdot 13$ for 1906, and an average of $\cdot 22$ in the 10 years 1899—1908 inclusive. Of the 10 deaths, 5 occurred in the first quarter, 3 in the second, 1 in the third and 1 in the fourth quarter of the year. The fatality rate, that is, the proportion of deaths to actual cases, amounted to 1·7 per 100, as compared with 1·8 for 1908, 1·3 for 1907 and 3·9 for 1906.

SCARLET FEVER.

		Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Harringay ...	Cases	12	5	5	5	4	1	3	2	4	2	6	4	53
	Deaths	1	..	...	...	...	...	...	..	...	...	1	...	2
West Green	Cases	4	6	11	3	2	1	10	2	11	10	5	18	83
	Deaths	...	...	1	...	..	..	...	...	...	...	...	...	1
St. Ann's ...	Cases	23	14	7	3	2	6	9	3	7	15	8	5	102
	Deaths	...	1	...	...	..	..	...	...	...	...	...	..	1
High Cross	Cases	11	4	4	6	4	1	5	4	7	12	7	10	75
	Deaths	...	...	...	1	..	..	...	...	...	...	...	..	1
Middle ...	Cases	19	19	11	18	14	9	18	6	14	10	10	7	155
	Deaths	1	...	1	2	...	...	...	...	1	..	...	...	5
Lower ...	Cases	11	6	13	12	9	7	11	9	6	12	1	4	101
	Deaths	...	...	...	..	..	...	...	..	...	...	...	.	0

In the report for 1908 recently issued by the Metropolitan Asylums Board there is included a table showing the case fatality in each year among the admissions for Scarlet Fever since their first Hospital was opened in 1870.

Scarlet Fever (Quinquennia)	Metropolitan Asylums Board Hospitals.			County of London, (including for isolation purposes, Tottenham)
	Admissions.	Deaths.	Ratio per cent. of deaths to admissions.	Mean Annual Mortality per 1,000 living.
1874-1878	3,815	484	13	0·68
1879-1883	8,665	1,044	12	0·62
1884-1888	15,286	1,505	10	0·27
1889-1893	43,958	2,973	7	0·23
1894-1898	66,089	3,107	5	0·18
1899-1903	63,020	2,053	3	0·10
1904-1908	88,439	2,563	3	0·11

Scarlet Fever.	Metropolitan Asylums Board Hospitals. (Tottenham Cases.)			Tottenham.
	Admissions.	Deaths.	Ratio per cent. of deaths to admissions.	Mean Annual Mortality per 1,000 living.
1909	469	*9	1·9	0·06

* The other death occurring from Scarlet Fever in the District took place in the patient's home.

It will thus be seen that the case *fatality* in London has been reduced from 13 per cent. to 3 per cent. and that the mortality is less than a sixth of what it was in the Seventies. Tottenham readers will note with pleasure that both our case fatality (1·9) and mean annual mortality (·06 per 1,000 living) are very considerably less than those obtaining in the County of London, although our patients are isolated in the same Institutions.

The Registrar-General in his latest Report, points out that in the year 1908, the local distribution of deaths from Scarlet Fever in England and Wales varied widely, the highest crude death rates at all ages having been 105 per million in Essex and Warwickshire, 116 in Staffordshire, 119 in Cheshire, 154 in Lancashire and 160 in Middlesex.

Those County rates have not, however, been adjusted for deaths in Public Institutions, otherwise Middlesex would not have appeared as the County with the highest death rate from Scarlet Fever: about 57 per cent. of the total deaths occurred among children under the age of 5 years, moreover the mortality from Scarlet Fever amongst young children (0—5 years) is greatest in populous districts, thus in 1908 the death rate did not exceed 15 per 100,000 in the Rural Counties, whereas it was as high as 52 per 100,000 in the Urban.

There were 12 "return cases" during 1909, as compared with 22 during the previous year; two of the returned patients suspected to be the sources of infection were found to be suffering from either aural or nasal discharge; in the other ten there was nothing to lead one to believe that the infection had not been completely eradicated. The regular disinfection of the skin, nostrils and middle ears in all doubtful cases should be scrupulously carried out; it is also wise to treat the bowel discharges of Scarlet Fever patients as containing the specific infection, and so observe the same precautions with regard to them as with regard to the excreta of Typhoid patients.

I append once more—for the information of day and Sunday School Teachers, who will be provided with a copy of this report—the symptoms of Scarlet Fever.

- (1) Sickness and vomiting, coming on suddenly, and usually without any known cause.
- (2) Cold shiverings and headache, followed by flushing, sore throat, and a fine red rash. The rash begins on the chest, and spreads downwards, over the limbs.
- (3) The tongue is heavily furred, with a red tip at first, and afterwards cleans markedly and becomes bright red with raised point, like the tongue of a cat.
- (4) The cheeks are flushed, but there is a pale ring round the mouth.
- (5) In a week or more the peeling of the skin begins on the chest and neck, and is afterwards very marked on the palms of the hands and soles of the feet, the skin coming off in flakes.

Many of the above symptoms may be absent, but some will always be present, and in all such cases a Doctor should be called in immediately, the patient being kept in a room away from others, until it is certain that there is no danger of infection. The incubation period of Scarlet Fever (that is the time between the reception of infection and the development of the first definite symptoms of the disease), is from one to eight days, but usually from three to five, and a quarantine of fourteen days is advisable after the latest exposure to infection. It might also be well for the teachers and parents to remember that the rash appears on the second day and begins to fade on the fifth, and that the disease is catching for at least six weeks and often much longer—as when a discharge from the ears or nose is present.

SEASONAL INCIDENCE.

The number of cases was highest in the first quarter (185), the fourth quarter coming next (146), then the third (131), while the smallest number of cases occurred in the second quarter (107).

The largest number of notifications received in any one week was for that ended January 30th, when 22 cases were notified to the Medical Officer of Health; 20 cases were notified for the weeks ended January 16th and April 17th. A copious rainfall and low atmospheric temperature tend to produce a diminished death-rate from this disease, which is always most fatal in hot dry weather.

SEASONAL MORTALITY.

The greatest mortality was in the first quarter (7), the second, third and fourth having one death each; last year the greatest mortality was in the third quarter, whilst the least was in the first; in 1907 the least mortality was in the first quarter.

I desire to remind parents, teachers and others in charge of children that—where no doctor is in attendance—they are bound to report all cases which they believe to be infectious to the Medical Officer of Health, under penalty of a heavy fine, and that ignorance of the law is no excuse; they should also remember that at the conclusion of isolation all the bedding and clothes used by the patient should be washed and disinfected.

* * * * *

Appended is copy of a leaflet distributed by us at the homes of patients of whose impending discharge from the Hospital the M.O.H. has received notice :—

Public Health Department,
Town Hall,
Tottenham.

PREVENTION OF "RETURN" CASES OF SCARLET FEVER
AND DIPHTHERIA.

It is very difficult to be certain that children are free from infection on their discharge from Hospital, consequently householders should observe the following precautions regarding discharged patients :—

1.—The child should be sent for a fortnight or more to a house where there are no children, but when this cannot be done, care should be taken that the child does not kiss the other children of the family or otherwise come into close contact with them, and on no account should such child be allowed to sleep with the others, or use the same towels, etc.

2.—A bath should be given every night, carbolic soap being used, and the exposed parts of the body may with great advantage be rubbed with Eucalyptus Oil night and morning.

3.—Discharges from the ears and nose are very infectious, and if found to exist, medical advice should at once be sought.

4.—The child should be taken into the fresh air as much as possible, but must not be sent to school or into any other assembly of children for at least a fortnight.

N.B.—Disinfectants can be obtained free of charge at (1) the Town Hall, (2) Coombes Croft House, and (3) St. Ann's Fire Station, by the occupants of any house in which there is an actual or suspected case of infectious disease.

(Signed),

Medical Officer of Health.

Table showing the Deaths and Death-Rates per 1,000 of the population during the past 5 years from the undermentioned Diseases.

		1905 (population 124,126)		1906 (population 134,605)		1907 (population 139,240)		1908 (population 143,383)		1909 (population 149,283)	
		Deaths.	Rate	Deaths.	Rate	Deaths.	Rate	Deaths.	Rate	Deaths.	Rate
Scarlet Fever	...	5	·040	18	·133	10	·071	13	·090	10	·066
Diphtheria	...	17	·137	12	·089	12	·086	19	·132	22	·147
Enteric Fever	...	6	·048	5	·037	4	·028	6	·0418	1	·006
Cancer	...	95	·765	78	·579	89	·639	94	·655	100	·669
Phthisis	...	85	·684	75	·557	68	·488	71	·495	69	·462

Weekly Return of Cases of Scarlet Fever, Diphtheria and Enteric Fever.

Week ending.		Scarlet Fever.	Diphtheria.	Enteric Fever.
Jan.	9	21	6	—
"	16	19	4	1
"	23	18	3	2
"	30	22	4	1
Feb.	6	18	4	—
"	13	4	1	3
"	20	15	2	—
"	27	17	—	—
Mar.	6	9	2	—
"	13	14	5	—
"	20	8	—	1
"	27	11	—	1
April	3	9	3	—
"	10	8	5	1
"	17	22	1	—
"	24	10	3	—
May	1	7	1	1
"	8	12	5	—
"	15	6	1	—
"	22	7	2	—
"	29	10	4	—
June	5	6	2	1
"	12	7	3	—
"	19	5	2	1
"	26	3	5	—
July	3	4	4	—
"	10	16	2	—
"	17	13	1	—
"	25	13	—	1
"	31	14	1	—
Aug.	7	9	3	—
"	14	8	1	—
"	21	6	—	1
"	28	3	3	1
Sept.	4	12	—	—
"	11	10	1	—
"	18	11	1	—
"	25	6	4	2
Oct.	2	10	3	—
"	9	14	3	1
"	16	19	3	1
"	23	15	4	—
"	30	13	5	—
Nov.	6	12	5	—
"	13	9	3	—
"	20	7	2	—
"	27	9	1	—
Dec.	4	8	3	—
"	11	6	2	2
"	18	12	5	—
"	25	10	5	—
"	31	12	3	—

**Special precautions to be observed when cases of
Scarlet Fever, Diphtheria, Typhoid or other
infectious disease are nursed at home.**

1.—Children from the house in which any infectious case of the above mentioned kind is nursed, should not attend either a day or Sunday School, and any of the inhabitants suffering from “sickness,” sore throat, lumps in the neck, or peeling of the skin, should be immediately reported to the Doctor.

2.—Notice of any library or school books in use on the premises should be given to the Public Health Department at the Municipal Buildings so that arrangements may be made for their disinfection, and no new books should be borrowed until the rooms, bedding, clothing, etc., have been disinfected.

3.—The patient should be isolated in a well ventilated room, situated as far from the noises of the house and street as possible, and no one except the person acting as nurse should be allowed to enter the room. All superfluous furniture, more especially of the soft variety, should be immediately removed from the room chosen. It is well also to have the floor mopped out, preferably with water containing some disinfectant, while a fire should be kept burning day and night, and due precautions taken regarding the ingress of fresh and the egress of foul air. The nurse or nurses should wear dresses that can be easily washed and are not too loose or soft in texture; they should, moreover, wash their hands after every attendance on the sick person, and wash at least hands and faces and change their outer clothes when going off duty. No visitors, and especially no children, should be allowed in

the infected house, and no domestic pets (and more particularly no cats) should be allowed in the sick room.

4.—*Special* cups, saucers, glasses, spoons, forks, etc., should be kept for the patient, and all spare food left from the sick room immediately destroyed.

5.—Soiled linen, including underclothing, handkerchiefs, bedclothes, towels, diapers, etc., etc., should be immersed in a large pail of water, in which 8 or 10 ozs. of common washing soda has been previously dissolved, left to soak for a day and then boiled in a copper. Materials which do not bear boiling should be placed in liquid disinfectant for a couple of hours and then washed. Discharges from the mouth, nose or ear should be received on rags or paper, which must be burnt forthwith. No dust should be allowed to accumulate in the room, and the floor ought to be moistened, preferably with a weak disinfectant solution, before dusting, and the dust collected burnt immediately.

6.—During convalescence, a daily warm bath is advisable, unless forbidden by the Doctor for some special reason; the face, hair, and hands, in particular, should be thoroughly cleansed.

7.—In cases of Typhoid Fever nursed at home, particular care must be taken to receive both the stools and urine as they are passed, into a suitable solution of Perchloride of Mercury. Carbolic Acid or other disinfectant, next to cover the vessel containing them with a cloth soaked in disinfectant and allow it to stand for about half an hour before emptying it (carefully) into the nearest W.C. No excreta or refuse of any kind from the sick room should find its way into the

ash-bin or be thrown upon the surface of any waste or other ground that may adjoin the premises.

The Public Health Department undertakes the disinfection of the sick room, bedding, clothes, etc., free of all cost, immediately the Medical Officer of Health is notified that the patient is considered free from infection by his Doctor ; moreover, disinfectants are supplied *gratis* to houses in which actual or suspected cases of infectious disease exist, on application at any of the three undermentioned places before 10.30 on any morning except Sunday.

- 1.—The Town Hall.
- 2.—Coombes Croft House.
- 3.—St. Ann's Fire Station.

DIPHTHERIA.

(And Membranous Croup).

The total number of cases notified was 151, a decrease of 18 on the number of the previous year, and an increase of 23 on the number for 1907 ; 15 of those cases however, were instances either of dual notification or mistaken diagnosis.

The deaths numbered 22, which is equivalent to a death rate of 0·14 per 1,000 of the population, as compared with 0·13 for 1908, 0·086 for 1907, 0·089 for 1906, 0·136 for 1905, 0·20 for 1904.

Let me again direct attention to the necessity for attending to the initial symptoms of this disease and adopting the serum treatment at the earliest possible moment, without waiting either for the results of a bacteriological examination or further clinical developments.

The following table shows the number of admissions of Diphtheritic patients to the Metropolitan Asylums Board's

Hospitals, the deaths, the ratio of deaths to admissions, and the mean annual mortality per 1,000 living for the periods indicated.

Diphtheria (Quinquennia)	Metropolitan Asylums Board Hospitals			County of London
	Admissions.	Deaths	Ratio per cent. of deaths to admissions.	Mean Annual Mortality per 1,000 living.
1889-1893	7,833	2,436	31	0.44
1894-1898	24,048	4,781	20	0.52
1899-1903	35,763	4,262	12	0.30
1904-1908	25,027	2,312	9	0.15

Of the 22 fatal cases, 8 occurred in the first, 4 in the second, 4 in the third and 6 in the final quarter of the year, showing once more, as far as the smallness of the figures can show, that the mortality of the disease is greatest in cold weather. The most fatal month was January, in which 4 deaths occurred, while there were 2 in February and 2 in March ; of the 4 deaths which occurred in the second quarter, 1 took place in April, 2 in May and 1 in June, while in the third quarter there were 2 deaths in July, there was 1 in August and 1 in September ; finally, of the 6 deaths which occurred in the fourth quarter of the year, 1 took place in October, 2 in November, and 3 in December.

The incubation period, though generally stated as being from 3 to 5 days, may be only a few hours and may extend to a fortnight.

DIPHTHERIA AND MEMBRANOUS CROUP, 1909.

Number of Attacks, of Deaths, and Case Fatality at different ages.

Ages	Attacks	Deaths	Percentage Fatality
Under one year	4	2	50·0
1 to 2 years	8	3	37·5
2 „ 3 „	12	4	33·3
3 „ 4 „	23	6	26·0
4 „ 5 „	17	1	5·8
5 „ 6 „	18	—	—
6 „ 7 „	12	5	41·6
7 „ 8 „	8	—	—
8 „ 9 „	6	1	16·6
9 „ 10 „	6	—	—
10 „ 15 „	11	—	—
15 „ 20 „	5	—	—
20 „ 25 „	1	—	—
25 „ 35 „	4	—	—
35 „ 45 „	1	—	—
45 „ 55 „	—	—	—
55 „ 65 „	—	—	—
over 65 „	—	—	—
	136	22	16·1

It would thus appear that the percentage fatality was greatest at the age period 0 to 1, while the 6 to 7, 1 to 2 and 2 to 3 year periods succeed one another in the order named. The percentage fatality at all ages amounted to 16·1, as against 12·8 for 1908 and 11·8 for 1907 : the rate compares favourably with that for the other large towns throughout England.

DIPHTHERIA.

		Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Harringay ...	Cases	2	1	4	2	2	...	1	2	1	...	2	3	20
	Deaths	1	1	1	...	1	1	...	1	...	...	...	...	6
West Green	Cases	...	...	...	3	...	4	1	1	1	2	4	3	19
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...
St. Ann's ...	Cases	6	5	3	1	3	3	...	2	1	4	2	1	31
	Deaths	2	...	1	...	1	...	...	...	...	1	...	1	6
High Cross ...	Cases	5	...	...	2	2	4	1	...	2	1	...	5	22
	Deaths	1	...	...	...	...	...	...	...	...	1	...	1	3
Middle ...	Cases	3	..	2	2	2	4	...	1	2	6	2	3	27
	Deaths	...	...	...	1	...	..	...	...	...	1	...	1	3
Lower ...	Cases	1	1	1	...	3	1	1	1	2	2	1	3	17
	Deaths	1	...	...	...	...	...	2	..	...	...	1	...	4

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Medical men practising in the district continue to avail themselves of the opportunities afforded them to have swabs examined at the Council's Laboratory, and thus more accurate diagnosis than was formerly possible is now obtained ; moreover many patients are now isolated as the result of bacteriological examination who would, in the past, have been allowed to mix indiscriminately with the general public.

ENTERIC FEVER.

22 cases of the disease occurred during the year, only 1 of which terminated fatally, giving a death rate of $\cdot 006$ per 1,000, as compared with $\cdot 04$ per 1,000 in 1908, $\cdot 02$ in 1907, $\cdot 037$ in 1906, $\cdot 048$ in 1905, $\cdot 06$ in 1904, $\cdot 08$ in 1903, and an average of $\cdot 09$ for the ten years 1899—1908.

The fatal case belonged to the High Cross Ward.

Of the 22 cases, 14 were under 15 years of age, 2 being under one year, 7 in the 1 to 5 year period, and 5 in the 5 to 15.

Table shewing Percentage of Removals of all the Notifiable Diseases.

Ward.	Cases.	Removals.	Percentage.
Harringay	88	65	73·8
West Green	119	69	57·9
St. Ann's	156	121	77·5
High Cross	115	92	80·0
Middle	212	136	64·1
Lower	131	103	78·6

Table shewing Percentage of Removals of Cases of Scarlet Fever, Diphtheria, and Enteric Fever.

Ward.	Cases.	Removals.	Percentage.
Harringay	76	65	85·5
West Green	104	69	66·3
St. Ann's	139	120	86·3
High Cross	100	90	90·0
Middle	188	136	72·3
Lower	120	103	85·8

Notifications and Cases of Infectious Disease.

	1907		1908		1909	
	Notified	Actual Cases	Notified	Actual Cases	Notified	Actual Cases
Small Pox	1	...	...	...	2	2
Diphtheria	128	101	169	148	151	136
Membranous Croup)						
Erysipelas	73	69	68	64	95	87
Scarlet Fever	784	728	749	718	596	569
Enteric Fever	48	40	25	24	22	22
Puerperal Fever	4	4	5	5	5	5
Continued Fever	...	...	...	...	...	...
Cerebro Spinal Fever	4	1	...	...	..	...
Total	1042	943	1016	959	871	821

*Quarterly Return of Cases of Infectious Diseases notified in the
various Wards.*

Ward.		Small Pox.	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Erysipelas.	Puerperal Fever.	Total.
Harringay ...	March ...	—	22	7	—	3	1	33
	June ...	—	10	4	—	4	—	18
	September ...	—	9	4	1	2	—	16
	December ...	—	12	5	2	2	—	21
	Ward Total ...	—	53	20	3	11	1	88
West Green.	March ...	—	21	—	—	4	—	25
	June ...	—	6	7	1	2	1	17
	September ...	—	23	3	1	—	—	27
	December ...	—	33	9	—	7	1	50
	Ward Total ...	—	83	19	2	13	2	119
St. Ann's ...	March ...	—	44	14	3	2	—	63
	June ...	—	11	7	—	3	—	21
	September ...	—	19	3	2	6	1	31
	December ...	—	28	7	1	4	—	40
	Ward Total ...	—	102	31	6	15	1	155
High Cross ...	March ...	—	19	5	3	3	—	30
	June ...	—	11	8	—	3	—	22
	September ...	—	16	3	—	5	—	24
	December ...	2	29	6	—	3	—	40
	Ward Total ...	2	75	22	3	14	—	116
Middle ...	March ...	—	49	5	3	6	—	63
	June ...	—	41	8	2	7	—	58
	September ...	—	38	3	—	5	—	46
	December ...	—	27	11	1	6	—	45
	Ward Total ...	—	155	27	6	24	—	212
Lower ...	March ...	—	30	3	—	1	—	34
	June ...	—	28	4	—	1	—	33
	September ...	—	26	4	1	2	1	34
	December ...	—	17	6	1	6	—	30
	Ward Total ...	—	101	17	2	10	1	131

MEASLES.

588 cases of this disease came to my knowledge during the year, 16 of which proved fatal, as contrasted with 47 during 1908, 40 during 1907, and 44 during 1906 : the death rate was therefore $\cdot 10$, as compared with $\cdot 32$ for 1908, $\cdot 28$ for 1907, and $\cdot 32$ for 1906. Five deaths were those of children under 1 year old, 10 were those of children between the ages of 1 and 5, and 1 came in the 5 to 15 years group.

There can, I think, be very little doubt in the mind of any scientific observer, that the aggregation in schools of children under 5 years of age is largely responsible for the high mortality which prevails from Measles and Whooping Cough in all our large towns. It must be remembered too, that the danger from those two diseases is not adequately represented by the death roll of little ones certified as having succumbed directly to either disease, for both Measles and Whooping Cough leave behind a susceptibility to Tuberculosis ; moreover, many cases of ear disease, some of them leading to ultimate deafness, owe their origin to one or other of those diseases.

Measles is very infectious in the early stage, even some days before the characteristic rash shows itself, consequently at this time it frequently escapes recognition, parents and teachers thinking that the child is suffering from "only a cold" ; consequently no attempt at isolation is made, although at every cough the little one gives off innumerable infective particles.

Moreover it should not be forgotten that not only are children under 5 more likely to "catch" Measles, but when caught they are also more likely to suffer from a severe attack and die than older children are. As the question of

Hospital Isolation for Measles is, under present local conditions, outside the range of practical politics in Tottenham, it would be idle to discuss it here. Exceptional care has been exercised by this Department during the past year with regard to ensuring, as far as possible, the private isolation of patients suffering from Measles and Whooping Cough.

Measles was most fatal in the first quarter of the year, which was responsible for 12 out of the total 16 deaths, the second quarter claiming 2 and the third and fourth 1 each; in 1908 the most fatal quarter was the fourth.

It is most regrettable that Measles and Whooping Cough should still be held by so many people of such small account that the services of a doctor are rarely secured when most required. Those diseases, as I have so often pointed out in previous Annual Reports, are much more fatal than Scarlet Fever and Diphtheria, though the latter are so much more dreaded.

8,011 deaths throughout the country were attributed to Measles during 1908: 93 per cent. of those belonged to children under 5 years of age.

The following is a copy of the leaflet distributed by us with reference to those two diseases:—

Public Health Department,
Tottenham.

“Advice Regarding
MEASLES AND WHOOPING COUGH.”

MEASLES:—The fear which Scarlet Fever and Diphtheria engender in most people, contrasts strangely with the utter disregard shown towards complaints like Measles or Whooping Cough, that are equally infectious and *far more fatal*:—

familiarity breeds contempt. Measles is very catching for 3 or 4 days before the rash comes out, when the nose and eyes “run,” and the eyes are inflamed, and also for three weeks after the rash appears. When the disease is about, all those children suffering from “cold in the head” should be promptly isolated from others, and carefully watched for the appearance of a dark red, raised and patchy rash, which comes out first on the face. All patients suffering from Measles should be kept in bed until the rash disappears, and isolated for three weeks from the family, no children being allowed to attend either Day or Sunday School during that time.

As Measles is often very like Scarlet Fever, and sometimes like Small Pox (both of which, under a heavy penalty, must be notified to the Medical Officer of Health), a medical man should be called in, in all cases of this disease.

WHOOPING COUGH. — I must again emphasise the importance of proper medical treatment in the early stages of this disease, the want of which is mainly responsible for the large death rate therefrom. *Measles and Whooping Cough are two of the diseases most fatal to children*; many deaths might be prevented by taking care, and especially by seeing that children do not take cold when suffering or recovering from those diseases. Whooping Cough is very infectious, and remains so for 6 weeks at least, and until the “whoop” disappears; it usually begins like an ordinary feverish cold; in a few days the child gets fits of severe coughing, some of these fits being followed by vomiting and “whooping.” In this disease no children should attend school (either day or Sunday) from the house affected, until the “whoops” have finally disappeared. The patient should

be kept by himself, in a warm well ventilated room (stripped of carpets and surplus furniture). Remember the patient wants both pure air and warmth; the air of a dirty stuffy room poisons the lungs and is more dangerous than colds or even draughts. To prevent the disease spreading to other houses, forbid your house to all, and let nobody from your house go visiting elsewhere. The discharge from the nose and throat should be received in rags, which should be immediately burnt; all bedding when removed should be steeped in boiling water, and special eating utensils should be used; when the last case is free from infection, everything in the sick room should be washed with soap and hot water, and as far as possible placed in the sun and air for a day; I should also be very glad to order special disinfection of such rooms when so requested, but should this not be decided upon, the wall paper should be rubbed down with common dough, which should then be burnt, and the windows kept wide open for 2 or 3 days. Special care should be taken that the sick child's clothes are all washed before he (or she) leaves the room and returns to school. It should be remembered that "any person who, while suffering from infectious disease, goes out in a public place, or allows anyone in his charge so suffering to go out, or takes infected clothes or bedding into a public place, renders himself liable to a heavy penalty."

(Signed)

MEDICAL OFFICER OF HEALTH.

WHOOPIING COUGH.

446 cases of this disease came to my knowledge during the year ; of those 23 were fatal, giving a death rate of $\cdot 15$ per 1,000 as compared with the very low death rate of $\cdot 06$ in 1908, $\cdot 38$ in 1907, $\cdot 17$ in 1906, $\cdot 54$ in 1905, and an average of $\cdot 33$ for the 10 years 1899—1908. 21 out of the total 23 fatal cases occurred in children under 5 years old, the remaining 2 deaths coming under the 5—15 years group.

Comparing 1908 with 1909, Measles was much more fatal in the former year and Whooping Cough more so in the latter. 10 of the deaths occurred in the second quarter, 6 in the first, 4 in the fourth, and 3 in the third quarter of the year.

The deaths from this disease are, generally speaking, due to the development of Pneumonia, Bronchitis or Convulsions as complications. The incubation period is from seven to fourteen days, but the characteristic whoop may not be heard for three weeks, and the patient is infectious before the whoop appears. The onset is insidious, and children exposed to infection should be quarantined for 3 weeks. Medical attention is of the utmost importance in an attack of Whooping Cough, and no child should be allowed to return to school within a fortnight after the characteristic cough and whoop have disappeared.

According to the recent report of the Registrar-General, 9,851 deaths were attributed to Whooping Cough throughout the country generally during the year 1908 ; 97 per cent. of those occurred in children under the age of 5 years.

Deaths from Measles and Whooping Cough (in weeks).

Week ending.		Measles.	Whooping Cough.	Week ending.		Measles.	Whooping Cough.
Jan.	9	1	—	July	10	—	—
„	16	—	1	„	17	—	—
„	23	2	—	„	24	—	—
„	30	3	—	„	31	1	—
Feb.	6	—	—	Aug.	7	—	—
„	13	1	—	„	14	—	—
„	20	2	—	„	21	—	—
„	27	—	1	„	28	—	—
Mar.	6	1	1	Sept.	4	—	—
„	13	1	—	„	11	—	—
„	20	—	1	„	18	—	1
„	27	1	2	„	25	—	—
April	3	—	—	Oct.	2	—	2
„	10	1	1	„	9	—	—
„	17	—	1	„	16	1	—
„	24	1	1	„	23	—	—
May	1	—	—	„	30	—	1
„	8	—	—	Nov.	6	—	—
„	15	—	2	„	13	—	—
„	22	—	3	„	20	—	1
„	29	—	—	„	27	—	1
June	5	—	2	Dec.	4	—	—
„	12	—	—	„	11	—	—
„	19	—	—	„	18	—	—
„	26	—	—	„	25	—	1
July	3	—	—	„	31	—	—

Table Showing comparative Death Rates from different Infectious Diseases of the Towns named.

Towns.	Small-Pox.		Measles.		Scarlet Fever.		Diphtheria.		Whooping Cough.		Fever.		Diarrhoea.	
	Ten years 1898-1907.	1908.	Ten years 1898-1907.	1908.	Ten years 1898-1907.	1908.	Ten years 1898-1907.	1908.	Ten years 1898-1907.	1908.	Ten years 1898-1907.	1908.	Ten years 1898-1907.	1908.
London ...	0·03	...	0·46	0·31	0·11	0·11	0·25	0·15	0·37	0·20	0·10	0·05	0·77	0·53
West Ham ...	0·06	...	0·53	0·71	0·11	0·16	0·44	0·17	0·47	0·26	0·20	0·09	1·49	1·00
East Ham...	0·04	...	0·38	0·22	0·14	0·17	0·28	0·45	0·37	0·06	0·12	0·03	0·88	0·34
Portsmouth ...	...	...	0·35	0·06	0·09	0·04	0·39	0·23	0·30	0·26	0·23	0·12	1·03	0·26
Southampton ..	0·01	...	0·27	0·16	0·03	0·04	0·26	0·13	0·24	0·28	0·12	0·04	0·83	0·52
Norwich ...	...	...	0·41	0·01	0·09	0·02	0·20	0·21	0·30	0·20	0·14	0·29	1·12	0·39
Plymouth ...	0·00	...	0·37	0·01	0·10	...	0·13	0·12	0·25	0·22	0·10	0·08	0·84	0·48
Birmingham ...	0·00	...	0·41	0·11	0·19	0·13	0·21	0·19	0·44	0·54	0·17	0·09	1·22	0·80
Nottingham ...	0·01	...	0·40	0·12	0·12	0·04	0·17	0·11	0·32	0·23	0·24	0·11	1·13	0·64
Birkenhead ...	0·01	0·01	0·40	0·35	0·16	0·06	0·23	0·11	0·40	0·50	0·21	0·09	1·07	0·76
Liverpool ...	0·03	...	0·49	0·34	0·26	0·28	0·24	0·17	0·47	0·45	0·20	0·11	1·49	0·84
Bolton ...	0·01	...	0·41	0·02	0·23	0·11	0·14	0·10	0·31	0·42	0·23	0·20	1·10	0·85
Manchester ...	0·01	...	0·62	0·56	0·17	0·15	0·19	0·18	0·43	0·33	0·14	0·11	1·31	0·92
Salford ...	0·00	...	0·65	0·69	0·29	0·27	0·38	0·51	0·49	0·42	0·25	0·17	1·41	0·98
Oldham ...	0·04	...	0·54	0·57	0·25	0·19	0·18	0·15	0·42	0·37	0·10	0·08	0·76	1·14
Blackburn ...	0·01	..	0·48	0·13	0·29	0·17	0·30	0·09	0·27	0·21	0·17	0·11	0·91	0·85
Preston ...	0·01	...	0·59	0·79	0·19	0·01	0·20	0·09	0·45	0·16	0·26	0·22	1·60	0·97
Bradford ...	0·01	...	0·31	0·24	0·17	0·04	0·21	0·14	0·25	0·19	0·16	0·10	0·65	0·65
Sheffield ...	0·00	...	0·55	0·23	0·22	0·08	0·43	0·08	0·36	0·53	0·21	0·06	1·45	0·87
Hull ...	0·08	...	0·50	0·35	0·09	0·01	0·24	0·18	0·36	0·21	0·17	0·08	1·38	1·36
Sunderland ...	0·01	...	0·50	0·16	0·17	0·04	0·17	0·17	0·39	0·74	0·26	0·09	1·04	0·66
Tottenham ...	0·07	..	0·34	0·32	0·09	0·09	0·21	0·13	0·38	0·06	0·10	0·04	0·82	0·34

DIARRHŒA.

The total number of deaths registered from Diarrhœa amounted to 18, as compared with 50 in 1908, 37 in 1907, 182 in 1906, 39 in 1905 and 145 in 1904. The death rate therefore amounted to $\cdot 12$ per 1,000 of the population, as against $\cdot 34$ in 1908, $\cdot 26$ in 1907, and $1\cdot 07$ in 1906. 17 out of the 18 deaths were those of children under 12 months old, the remaining death belonging to the 1 to 5 years group. No adult death from this disease was recorded. No death occurred in the first quarter, 1 in the second, 14 in the third, and 3 in the final quarter of the year.

The following table shows the relation of Earth Temperature (at a depth of 4 feet), Rainfall and Bright Sunshine to Deaths from Diarrhœa, during the months of August and September, 1909 :—

Week ending	Earth Temperature.			Rainfall. (<i>inches</i>).	Sunshine. (<i>hours</i>).	Deaths from Diarrhœa.
	Highest.	Lowest.	Mean.			
August 7 ...	58·8	58·4	58·6	0·24	54·8	0
„ 14 ...	60·0	58·8	59·5	nil	81·7	2
„ 21 ...	61·0	60·3	60·8	0·84	46·2	1
„ 28 ...	60·9	60·4	60·5	0·43	32·2	3
Sept. 4 ...	60·3	59·6	60·1	0·45	45·6	2
„ 11 ...	59·4	59·0	59·2	0·52	35·1	2
„ 18 ...	59·0	58·2	58·8	0·43	20·7	2
„ 25 ...	58·2	58·0	58·1	0·75	28·4	1

It is most encouraging to note the steadily decreasing death rate from this disease in Tottenham ; its extent will be better appreciated when we recall that in 1897 the Diarrhœal death rate was $4\cdot 3$ per 1,000, in 1898 it was $3\cdot 9$, in 1899 it

was 4·7, in 1900 it was 4·0, and the average for the 10 years 1898—1907 amounted to 2·8.

The London rate for the third quarter of 1909 was 0·8, as compared with an average of 2·2 for the decennium 1899—1908, while the average rate of the 76 great towns was 1·0 in 1909, as compared with an average of 2·2 for the previous ten year period.

Circulars, drawn up by your Medical Officer of Health, on the proper feeding of infants and the prevention of Summer Diarrhœa, have, as in past years, been regularly distributed by the female staff in the poorer portions of your district, whilst an endeavour has been made to educate the senior female pupils in your schools upon the subject by special lectures, dealing largely with the feeding and clothing of infants, and the necessity—for young and old alike—of fresh air, and cleanliness in food, home and person. Let me once more point out the necessity for protecting food of all kinds, but more especially articles like milk, sugar, jam, treacle, honey, etc., from dust and flies, both of which frequently act as germ-carriers and are doubtless largely responsible for the spread of such diseases as Diarrhœa, Enteric Fever, etc. Flies breed plentifully in manure and rubbish heaps, which should not accordingly be allowed in the immediate vicinity of dwelling houses, more especially in warm weather.

The Registrar-General's Return for the third quarter of 1909 shows, that of the Western Boroughs included in the County of London, the highest Diarrhœal death rate was at Fulham, where it amounted to 1·46 per 1,000 (as compared with 1·78 for 1908), while the lowest was at the City of Westminster, where it was 0·14 (as contrasted with 0·42 for

1908) : of the Northern Boroughs, the highest rate was again found at Hackney, where it amounted to 0·78 (as compared with 1·86 in 1908), and the lowest at Hampstead, where the rate was practically nil (as contrasted with 0·17 in 1908) ; the Eastern Boroughs continue to suffer from Diarrhœa more than the other divisions of the Metropolis, the death rate from the disease being highest in Bethnal Green and Shoreditch, where it reached 2·08 and 2·03 respectively ; the most favourable return from the Eastern district was again found in Stepney, where it stood at 1·03 (as compared with 1·99 for 1908) ; of the Southern Boroughs, the highest rate was recorded at Southwark, where it amounted to 1·37 (as contrasted with 2·34 in 1908), and the lowest in Woolwich, where it only reached 0·21.

The following table shows the Annual Death Rate from Diarrhœa per 1,000 of the population in the following towns during each week of the third or Summer quarter of 1909.

Annual Death-rate, per 1000 living, from Diarrhoea in the following Towns in each week of the Third, or Summer Quarter of 1909.

Towns.	Annual Rate in 13 weeks.	July 10th.	July 17th.	July 24th.	July 31st.	Aug. 7th.	Aug. 14th.	Aug. 21st.	Aug. 28th.	Sept. 4th.	Sept. 11th.	Sept. 18th.	Sept. 25th.	Oct. 2nd.
London ...	0·8	0·2	0·1	0·2	0·3	0·3	0·4	0·8	1·7	1·5	1·7	1·4	1·2	0·8
West Ham ...	2·0	0·2	0·2	0·6	0·8	0·6	1·9	2·1	4·5	3·1	4·4	3·6	2·4	0·3
East Ham ...	0·6	0·3	—	0·3	—	—	—	0·7	0·3	2·4	2·1	1·4	0·7	—
Portsmouth ...	0·4	—	0·2	0·5	—	—	0·2	0·2	0·7	0·2	0·2	1·2	0·2	1·0
Southampton ...	1·3	—	0·8	0·4	0·8	—	0·4	0·8	2·5	2·5	2·9	0·8	2·5	1·7
Norwich ...	1·4	—	—	0·4	0·8	0·4	1·3	0·4	3·8	2·9	2·5	2·9	1·3	0·8
Plymouth ...	1·0	0·4	0·4	—	—	—	2·1	2·1	2·1	2·5	1·3	1·7	—	—
Birmingham ...	1·2	0·2	0·1	0·4	0·3	0·9	0·5	1·7	2·5	3·3	1·7	1·6	1·4	0·7
Nottingham ...	2·1	—	—	0·2	0·4	1·6	1·8	4·2	5·9	4·8	3·8	2·2	1·2	0·8
Birkenhead ...	1·3	1·3	—	0·4	1·7	0·9	—	1·7	2·6	2·6	2·2	2·2	0·4	0·4
Liverpool ...	1·9	0·2	0·3	1·0	0·8	1·0	1·7	3·7	5·1	3·0	3·1	2·1	1·5	1·4
Bolton ...	0·9	—	1·4	—	1·1	0·3	1·1	0·8	0·8	0·6	1·7	1·1	1·4	1·7
Manchester ...	1·1	0·1	0·6	0·2	0·4	0·9	1·0	1·5	2·1	2·2	1·4	1·4	1·4	0·7
Salford ...	1·1	0·4	—	0·9	0·2	—	0·9	1·1	2·8	3·7	1·5	1·3	0·9	0·6
Oldham ...	0·6	0·7	0·7	0·4	—	0·4	0·7	0·4	—	0·4	0·4	0·7	1·8	1·5
Blackburn ...	0·5	0·8	0·4	0·8	—	0·4	0·8	1·1	—	0·8	0·4	—	0·8	0·4
Preston ...	0·3	—	—	—	—	0·4	0·4	0·9	0·4	0·4	0·9	0·4	—	—
Bradford ...	0·3	0·5	—	—	0·9	0·4	—	0·4	0·5	0·2	0·7	—	0·4	0·4
Sheffield ...	1·8	0·4	0·2	0·4	0·7	1·0	1·2	4·9	4·5	3·1	2·2	2·2	1·1	1·6
Hull ...	1·5	0·2	—	0·2	—	0·8	0·2	1·3	2·3	3·6	2·3	4·0	2·8	2·3
Sunderland ...	0·7	—	—	0·3	0·3	0·3	—	0·7	1·6	1·0	1·3	1·6	—	1·3
Tottenham ...	0·5	—	—	0·4	—	—	0·8	0·8	0·4	0·8	1·2	1·2	0·4	0·4

ERYSIPELAS.

95 cases of Erysipelas were notified, but there were actually only 87 cases, duplicate notifications accounting for the difference of 8. 7 cases terminated fatally, as against 3 in 1908, 2 in 1907, 1 in 1906, and 6 in 1905 ; the death rate accordingly amounted to $\cdot 04$ per 1,000.

PUERPERAL FEVER.

5 cases of Puerperal Fever were notified, of which 2 terminated fatally in the district, but there were 2 additional deaths of Tottenham residents from this cause outside the Parish ; the mortality rate was accordingly $\cdot 02$, as contrasted with $\cdot 02$ for 1908, $\cdot 02$ for 1907, and $\cdot 03$ for 1906.

The disease is essentially preventable, and should never occur if proper precautions are taken regarding cleanliness and contact with any case of infectious disease.

PHTHISIS.

Under the provisions of the Public Health (Tuberculosis) Regulations, 1908, 88 cases of Pulmonary Tuberculosis were notified to me during the year. 69 deaths were registered as due to the disease, of which 25 occurred outside the district : the death rate accordingly was $0\cdot 46$, as compared with $\cdot 49$ in 1908, $\cdot 48$ in 1907, $\cdot 55$ in 1906, and $\cdot 68$ in 1905.

The recently issued Annual Report of the Registrar-General points out that Tuberculosis was responsible for 10·8 per cent. of the mortality from all causes, and for a death rate of 1,583 per million living at all ages and of both sexes. Tuberculous Phthisis accounted in 1908 for the deaths of 20,192 persons, and "Phthisis," not otherwise defined, for the deaths of 19,307 persons, at all ages and of both sexes.

Together those deaths were equal to 70 per cent. of the total deaths from Tuberculosis, and to a rate of 1·115 per 1,000 of the population, which happily is the lowest on record. Throughout the last 40 years, there has been a steady decrease in the mortality from tuberculous diseases in the aggregate and that decrease has been greatest among the females. Among counties containing populations above 100,000, the highest uncorrected death rates from Tuberculosis in 1908 were in London, 1,806 per million living, in Lancashire 1,848, in Northumberland 1,947, in Carnarvonshire 2,205, and in Carmarthenshire 2,323. In proportion to the living, the victims of Phthisis are now only half-as numerous as they were 50 years ago.

It is my duty to reiterate the advice—so often previously given to the Council—that it would be well—if only for educational reasons—to maintain even a few beds for suitable Tottenham cases, at some well-conducted Sanatorium; moreover, it appears to me to be the distinct duty of a Sanitary Authority to provide some means of isolation for poor patients in the final stages of the disease, who would otherwise have to live or sleep in the same room with the remaining members of their families.

All houses from which a case of Phthisis is notified to me are periodically visited by the Female Inspectors and myself, and a circular, copy of which is appended, containing directions to householders on the prevention of Consumption is left at every such house on the occasion of our first visit.

“ PREVENTION OF CONSUMPTION.

Simple hints for Householders who wish to protect themselves and their families from the above Disease.

- 1.—Live in the open air as much as possible.
- 2.—Keep all the rooms of your house—bedrooms as well as “living” rooms—well ventilated. Bedroom windows should be open at the top at night and top and bottom during the day. Do not be afraid to let air and sunlight in, they are the best medicines you can have. The chimneys, either of living or bedrooms, should never be stopped up.

As the air of indoor public meeting places is generally very foul, it is well to avoid frequenting them as far as possible. The same remark applies to stuffy private rooms and railway carriages, etc.

- 3.—Observe the most scrupulous cleanliness in every portion of the house, and see that all house refuse is frequently burnt or removed.

Floors should be sprinkled before being swept, as dust is the usual means by which the germs of most infectious diseases are spread.

As the dirt under the nails and on the tips of the fingers of children usually contains disease germs, and as children frequently suck their fingers and also insert them in their nostrils, the importance of keeping the tips and nails of the fingers clean is very evident.

- 4.—Allow no spitting on your floors, passages, or yards. Anyone who already suffers from Consumption should only spit into (a) a special spittoon or (b) a cup containing water or a little disinfectant; the spittoon—if of paper

or cardboard—should afterwards be burnt, and if of earthenware, glass, or metal, should be frequently cleansed with boiling water—as should also any cups or other utensils used by consumptives.

5.—Obtain your milk from the most reliable milk vendor in the district ; if you have any doubt as to its purity, boil it before using ; this precaution should be invariably taken in hot weather, though it should be remembered that boiling lessens the nutritive value of milk. The diet generally should be simple but ample ; alcohol should be avoided, except in cases where prescribed by the Medical Attendant, and in those instances the quantity ordered should not be exceeded.

6.—As the phlegm of consumptive persons contains multitudes of the germs causing the disease, it should not be swallowed, as there would then be danger of setting up tubercular mischief in other portions of the body (the digestive tract).

7.—As it is absolutely necessary that the air breathed should be pure, the clothing worn should be warm enough to protect patients from becoming chilled, either out of doors or indoors, more especially is this necessary during sleep.

8.—During the act of coughing, a handkerchief or clean rag should be held over the mouth, and such rags or handkerchiefs should be boiled in water containing some common washing soda, before being sent to a laundry.

N.B.—Disinfectants can be obtained, free of charge, at (1) the Town Hall, (2) Coombes Croft House, and (3) St. Ann's Fire Station, by the occupants of any house in

which there is a case of Consumption or other infectious disease.”

It should be remembered that, contrary to what is generally believed amongst the laity, Consumption is not hereditary, and that the danger of infection from close contact with consumptives may be obviated by keeping the general health good, avoiding excesses of all kinds, and taking the simple precautions advised above.

Acting on my advice, the Council decided during the year to allow me to supply spit bottles to such Consumptive patients as could not afford to purchase same themselves.

Wherever a death occurs from Phthisis, we endeavour to secure the disinfection of the bed room, bedding, and clothes used by the deceased.

PHTHISIS.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Harringay	1	...	1	...	...	1	1	1	2	...	2	...	9
West Green	...	...	...	...	1	...	1	2	2	1	..	1	8
St. Ann's	...	...	3	1	...	1	1	1	3	2	2	3	17
High Cross	...	1	...	...	3	3	2	1	1	1	1	3	16
Middle	2	...	...	2	1	...	...	1	2	5	...	...	13
Lower	1	...	1	..	...	1	1	...	...	1	1	...	6
Total ...	4	1	5	3	5	6	6	5	10	10	6	7	69

I have on many previous occasions pointed out the necessity of making some provision for the isolation and treatment of suitable cases of Consumption, Puerperal Fever, and Erysipelas, which, under present conditions, are looked upon askance by Poor Law, Sanitary, and General Hospital autho-

rities, all of whom practically disown responsibility for their care, and suffer them, in many instances, to go to their graves without any serious, continued, or effectual effort being made to preserve their lives. It is to be hoped that in the new legislation, which it is presumed will follow the reports of the Poor Law Commission, due attention will be given to this subject, and power placed in the hands of Sanitary authorities to isolate such cases of advanced Phthisis as are now a source of continual danger to those with whom they reside. During the past year I have known one instance (as in previous years I have known several) of a Phthisical patient in the later stages of the disease refusing to go to the local infirmary, although he and his family had only two rooms in which to live and sleep. The result was, as might have been anticipated, that one of his young children contracted the disease (and has since died), while his wife and another child now show symptoms of infection. Surely such a state of things is diametrically opposed to the most elementary principles of sanitation, economy, and morality.

Of the 69 deaths, 39 belonged to males and 30 to females. The higher mortality amongst men, both locally and throughout the country generally, is doubtless mainly due to the influence of occupation and alcohol.

TUBERCULAR DISEASES OTHER THAN PHTHISIS.

107 deaths were certified as due to Tubercular Diseases other than Phthisis, as compared with 98 in 1908, 113 in 1907, and 112 in 1906. The death rate accordingly amounted to .71, as compared with .68 for 1908, .81 for 1907, and .83

for 1906. The deaths were distributed in age groups as follows :—

Under 1 year	...	...	...	14
1 and under 5	...	...	...	24
5 „ 15	...	...	..	10
15 „ 25	...	...	..	14
25 „ 65	...	...	...	42
65 and upwards	...	...	...	3

It is most advisable that—as in most sanitarily conducted districts—a veterinary surgeon should be employed to inspect, say twice every year, the teats and udders of all the milch cows in the district, with a view to the discovery of tuberculous disease, and the consequent prevention of tubercular infection by means of milk and meat.

The Registrar General informs us that “Other Tuberculous diseases” were responsible during 1908 for 5,936 deaths throughout England and Wales, which corresponds to a rate of $\cdot 168$ per 1,000 living; this total consisted of 4,231 deaths from general Tuberculosis, and 1,705 deaths from Scrofula and local Tuberculous affections, such as Lupus and Tuberculous diseases of the bones and joints. Of the total deaths, 2,112 were those of children under 5 years of age, which is equal to a percentage of 35.

PNEUMONIA.

Pneumonia was responsible for 119 deaths, as compared with 132 in 1908; this gives a death rate of $\cdot 70$, as contrasted with $\cdot 92$ in 1908, $1\cdot 23$ in 1907, $\cdot 83$ in 1906, and $1\cdot 12$ in 1905. It is thus evident that the reduction which has for some years been apparent in the mortality from this disease was well maintained during 1909.

When we remember that its increased incidence is intimately connected with poverty, exposure to extremes of temperature, and alcoholic excess, there is all the more reason to rejoice at such manifest improvement.

Appended will be found a table showing the distribution of deaths in age groups :—

25 years and under	...	...	...	73
35 „ „ „	...	...	...	10
45 „ „ „	...	...	...	9
55 „ „ „	...	...	...	9
65 „ „ „	...	...	...	8
75 „ „ „	...	...	...	5
85 „ „ „	...	...	...	4
Upwards of 85 years	...	...	...	1

The greatest number of deaths (26) occurred in the High Cross Ward, while in the Lower there were 25, in St. Ann's 24, in the Middle 21, in West Green 13, and in Harringay only 10.

34 deaths, that is to say nearly one-third of the total number, were those of infants under one year old. The mortality from the disease in the 1-5 years age-group only amounted to 31 deaths, that is considerably less than half of the number recorded for 1908. There were 36 deaths in the age-group 25-65 years, and 8 deaths of persons between the age of 5 and 25.

The death rate is considerably higher in urban than it is in rural districts, and for males than it is for females.

BRONCHITIS.

142 deaths were due to Bronchitis, giving a death rate of .95 per 1,000, as compared with .71 in 1908, .78 in 1907,

·77 in 1906, and ·805 in 1905 ; the age-group distribution was as follows :—

Under 1 year	...	...	...	...	31
1 and under 5 years	...	...	...	...	6
5 „ „ 15 „	...	...	...	...	0
15 „ „ 25 „	...	...	...	...	0
25 „ „ 65 „	...	...	...	...	38
65 and upwards	...	...	...	...	67

The disease was, as usual, most fatal to very old and very young persons.

Bronchitis is the largest factor in the production of the mortality from diseases of the “respiratory system.” In 1908 the number of deaths due to Bronchitis throughout the country at large amounted to 38,702, and was thus equal to a crude rate of 1·092 per 1,000 living. The incidence of this disease at all ages is practically equal on both sexes. for though at ages under 5 years boys appear to suffer more severely than girls, at most of the other age groups the mortality of females is higher. The average death rate of the disease has fallen very considerably during the past 20 years.

VENEREAL DISEASES.

One death was certified as due to Venereal disease, as against 1 in 1908, and 2 in each of the years 1907 and 1906. The real fatality of those diseases is, however, by no means properly represented by the number of deaths certified as due to them.

CEREBRO-SPINAL FEVER.

There was no case of this disease in the district during 1909.

CANCER.

Cancer was responsible for 100 deaths, as compared with 94 in 1908, 89 in 1907, and 76 in 1906 ; the death rate accordingly was .66, as contrasted with .65 in 1908, .63 in 1907, and .57 in 1906. 65 of the total deaths occurred in the 25-65 years age-group, while 33 were those of persons aged 65 and upwards.

The following table shows the distribution of the deaths in wards and months :—

CANCER.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Harringay	...	2	...	2	2	3	...	..	2	...	...	3	14
West Green	2	...	3	1	...	1	1	...	1	1	1	3	14
St. Ann's	3	2	...	..	...	3	1	3	2	...	...	2	16
High Cross	...	2	...	3	...	2	4	...	1	1	1	2	16
Middle	2	1	...	3	1	...	4	2	1	2	2	2	20
Lower	...	2	...	3	1	2	5	2	...	2	1	2	20
Total	7	9	3	12	4	11	15	7	7	6	5	14	100

The English death rate from Cancer still remains unenviably high ; during 1908 the deaths ascribed to malignant disease throughout the country generally numbered 32,717, exceeding by 1,104 the annual average in the previous quinquennium corrected for estimated increase of population. The mortality amongst males was .813 per thousand living, or 4 per cent. more than that of 1907, while that of females remained practically unchanged at 1,027 per 1,000 living. The deaths at ages above 35 amounted to 96 per cent. of the whole.

The most frequent seats of malignant disease are the genital organs in females and the digestive organs in males.

It is the practice of this department to disinfect the rooms, bedding, clothes, etc., used by patients who have died from Cancer, and to advise the destruction of such clothes etc., as have come into immediate contact with cancerous sores. It is dangerous to dress cancerous ulcers whilst there are unprotected scratches or cuts upon the hand.

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HEART DISEASES.

Heart Disease was once more the largest factor in our death rate, since it was responsible for 153 deaths, as against 163 in 1908 ; the death rate accordingly amounted to 1·02, as against 1·13 for 1908, 1·22 for 1907, 1·5 for 1906, and 1·0 for 1905.

The greatest number of deaths from those diseases occurred in the Middle and High Cross Wards, each of which was responsible for 35 cases, whereas there were 28 in St. Ann's, 24 in Harringay, 18 in the Lower, and 13 in the West Green Ward.

The following table shows the incidence of Heart Diseases at several age groups :—

Under 1 year	...	...	...	...	7
1 to 5 years	...	...	...	...	2
5 ,, 15 ,,	...	...	...	..	10
15 ,, 25 ,,	...	...	...	..	3
25 ,, 65 ,,	...	...	...	...	78
65 and upwards	...	...	...	...	53

ALCOHOLISM (AND CIRRHOSIS OF LIVER).

14 deaths were certified as due to those causes, as compared with 12 in 1908, 9 in 1907, 23 in 1906, 16 in 1905, 12 in 1904, 16 in 1903, and 18 in 1902; the death rate per 1,000 of the population thus amounted to $\cdot 09$, as contrasted with $\cdot 08$ for 1908, $\cdot 06$ for 1907, and $\cdot 17$ for 1906.

What has been already said in dealing with Venereal diseases applies with equal force to Alcoholism, namely, that the certified deaths form a very small part of the mortality for which alcoholic excess is primarily responsible. Nothing is more noticeable, either in our house-to-house or casual inspections, than the frequency with which misery and squalor are associated with intemperance in the houses or tenements where insanitary conditions are found to obtain.

DEATHS FROM VIOLENCE.

There were 32 accidental deaths, 3 suicides, and 2 murders, making a total of 37 deaths registered under this heading; the death rate accordingly amounted to $\cdot 21$, as contrasted with $\cdot 29$ for 1908, $\cdot 35$ for 1907, and $\cdot 33$ for 1906.

The following list shows the Roads in which Fatal Cases occurred from the respective Diseases mentioned.

SCARLET FEVER.		DIARRHOEA.		PHTHISIS.	
Berkeley Road ...	1	Avenue Road ...	1	Arthur Road ...	1
Chesterfield Gardens	1	Bailey's Lane ...	1	Arnold Road ...	1
Hewitt Road ...	1	Crossfield Road ...	1	Beaconsfield Road...	1
High Road ...	1	Cornwall Road ...	1	Boundary Road ...	1
Holcombe Road ...	1	Clarence Road ...	1	Broadwater Road ...	1
Langham Road ...	1	Hampden Road ...	1	Brunswick Court ...	1
North Grove ...	1	Hale Road ...	1	Conway Road ...	1
Rosebery Avenue ...	1	Ida Road ...	1	Collingwood Road...	1
Spencer Road ...	1	Laura Road ...	1	Chesnut Road ...	1
Tilson Road ...	1	Orchard Place ...	1	Dongola Road ...	1
DIPHTHERIA.		Shrubbery Road ...	1	Edith Road ...	1
Abbotsford Avenue	1	Stonebridge Road ...	1	Fairview Road ...	1
Conway Road ...	1	White Hart Lane ...	1	Fladbury Road ...	1
Edith Road...	1	Welbourne Road ...	1	Frome Road ...	1
Green Lanes ...	1	Whitehall Street ...	1	Fairbourne Road ...	1
Glenwood Road ...	1	MEASLES.		Franklin Street ...	1
High Road ...	1	Colsterworth Road	1	Herbert Road ...	1
Henry Road ...	1	Church Road ...	1	Harringay Road ...	2
Lealand Road ...	1	Cranleigh Road ..	1	Hampden Road ...	1
Queen Street ...	1	Edith Road ...	1	Hillside Road ...	1
Rosebery Gardens	1	Glenwood Road ...	2	High Road ...	1
Rosebery Avenue ...	1	Green Lanes ...	1	Loxwood Road ...	1
Southey Road ...	2	Langham Road ...	1	Lawrence Road ...	1
Siddons Road ...	1	Melton Road ...	1	Lordsmead Road ...	1
Seaford Road ...	1	Osman Road ...	1	Markfield Road ...	1
Templeton Road ...	1	St. Margaret's Road	1	Malvern Road ...	1
Woodside Gardens	1	Scales Road ...	1	Northumberland Pk.	1
Wakefield Road ...	1	Stanley Road ...	1	Osman Road ...	1
		Templeton Road ...	1	Poynton Road ...	1
		Tewkesbury Road...	1	Rowley Road ...	1
MEMBRANOUS CROUP.		WHOOPIING COUGH.		St. Margaret's Road	1
Brereton Road ...	1	Asplins Road ...	1	Seaford Road ...	2
Glendish Road ...	1	Arnold Road ...	1	Shelbourne Road ...	1
Northumberland Gr.	1	Bailey's Lane ...	1	Southey Road ...	1
PUERPERAL FEVER.		Brunswick Road ...	1	Scales Road ...	1
Asplins Road ...	1	Clyde Road ...	1	Shrubbery Road ...	1
Harringay Road ...	1	Cornwall Road ...	1	Thackeray Avenue	1
Victoria Crescent ...	1	Culvert Road ...	2	Tewkesbury Road...	2
ERYSIPELAS.		Eagle Avenue ...	1	Tilson Road ...	1
Brunswick Road ...	1	Frome Road ...	1	Warwick Gardens ..	1
Elmar Road ...	1	Fairfax Road ...	1	Woodlands Pk. Rd.	1
Paxton Road ...	1	Glenwood Road ...	1	West Green Road...	1
Pelham Road ...	1	Melton Road ...	1		
Springfield Road ...	1	Paignton Road ...	1		
West Green Road...	1	Portland Road ...	1		
		Rntland Gardens ..	1		
		Ripon Road ...	1		
		Sirdar Road ...	1		
		Seaford Road ...	1		
		Templeton Road ...	1		
		Victoria Road ...	1		
		Woodside Gardens	1		
		Whitehall Street ...	1		

Deaths occnrring at Hospitals are, for the purposes of the above table, debited to the home addresses of the patients.

INFANTILE MORTALITY.

The "Infantile Mortality Rate" expresses the proportion of the number of deaths of children under 12 months old to every 1,000 births that have occurred during the same year. 3,791 children were born in Tottenham during 1909, and 336 of that number died before reaching the age of one year. **Tottenham's Infantile Mortality Rate was therefore 88.6, as compared with 95.55 in 1908, 100.0 in 1907, 128 in 1906, and an average of 129.7 for the decennium 1899-1908.**

The above must be regarded as a very satisfactory rate for a working-class district like ours.

Of the 72 deaths which occurred in the first week of life, 29 were due to Premature Birth, 12 to Atrophy, Debility, etc., and 9 to Congenital Defects, while taking the first 4 weeks of life, 82 deaths were due to those causes which may fairly be regarded as entirely pre-natal. Of the 49 deaths which occurred in the second month of life, 14 were due to Bronchitis and Pneumonia, 7 to Atrophy, Debility, etc., 5 to Diarrhœal Diseases, and 4 to Premature Birth. Taking the first twelve months of life, 108 out of the total of 336 deaths were accounted for by Premature Birth in conjunction with Atrophy, Debility, etc., while 65 were due to Bronchitis and Pneumonia, and 25 to Diarrhœal Diseases.

The following table is extracted from the returns of the Registrar-General for 1908, and shows the comparative Infantile Mortality Rates for the towns mentioned:—

Towns.	Deaths of Infants under 1 year of age to 1,000 Births.		Towns.	Deaths of Infants under 1 year of age to 1,000 Births.	
	Ten years 1898- 1907	1908‡		Ten years 1898- 1907	1908
Hastings	117	81	Sheffield	175	140
Croydon	126	99	Bolton	160	148
Huddersfield	131	111	Manchester	177	151
Handsworth	107	87	Birmingham ...	175	144
Ipswich	147	107	Blackburn	177	149
East Ham	124	110	Preston	198	153
Liverpool	174	141	Nottingham	177	145
Oldham	162	159	Tottenham	130	96

‡ The figures for 1909 will shortly be published.

The Infantile Mortality Rates for the different Wards are as follows :

West Green Ward	...	...	...	64·4
Harringay	„	...	...	71·0
Middle	„	...	...	87·6
Lower	„	...	...	87·9
St. Ann's	„	...	...	88·8
High Cross	„	...	...	121·4

It will accordingly be seen that West Green has succeeded in maintaining its place of honour, Harringay again coming second, the Middle Ward third, the Lower fourth, St. Ann's fifth, and the High Cross Ward the lowest position of all ; unfortunately, the High Cross Ward has not had the same attention bestowed upon it during the past year as in previous years, owing to the resignation of Miss Aldridge, and the long interval that intervened before her successor took up duty. There has been an improvement in five out of

the six Wards, but that in St. Ann's is particularly worthy of notice.

The following table gives some idea of the work carried out by the Female Staff during the year in so far as it concerns : (1) Infantile Mortality and (2) General Sanitary Work.

It is gratifying to be in a position to reiterate my approval of the careful and conscientious manner in which the female staff have carried out their duties. Miss Newton discharged the duties single-handed for several months of the year.

PREMISES VISITED :

(a)	In connection with notification of births	1,909
(b)	" " " deaths	
	under 12 months 	114
	Number of Babies found to be breast-fed ...	1,150
	" " " hand-fed ...	175
	Cases where Breast feeding found to be supplemented by hand-feeding ...	201
	Visits in connection with cases of Measles, Whooping Cough, etc. 	531
	Visits in connection with cases of Phthisis	244
	Visits in connection with cases of Puerperal Fever 	7
	Visits in connection with Complaints received 	54

Visits to Outworkers, Laundries, etc. ... 209

PARTICULARS OF NUISANCES ABATED :

Houses cleansed, repaired, etc. ... 31

Roofs and gutters repaired ... 4

Cisterns and Water Pipes repaired, etc. ... 34

W.C.'s and Gullies unstopped .. 20

Yards paved or repaired ... 5

Dust bins supplied or repaired ... 27

Check Cisterns supplied or repaired ... 11

Overcrowding abated ... 9

* * * * *

The most recently published figures of the Registrar General show that Urban Infantile Mortality is considerably in excess of that obtaining in Rural areas, though this is more marked in the later than the earlier part of the first year of life.

L.G.B. TABLE I.

Table showing the Population, Birth Rate, and Death Rate from all causes, in Tottenham during the last ten years.

YEAR.	Population estimated to Middle of each Year.	Births.		Deaths under One Year of Age		Deaths at all Ages Gross.		Deaths in Public Institutions.	Deaths of Non-Residents registered in District.	Deaths of Residents registered beyond District	Deaths at all Ages Nett.	
		Number	Rate.*	Number	Rate per 1000 Births registered.	Number.	Rate.*				Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1899	96,498	2925	30.3	478	163.4	1466	15.1	82	81	...	1385	14.4
1900	98,268	2964	30.1	501	169.0	1527	15.5	116	82	...	1445	14.7
1901	103,243	3179	30.0	431	135.5	1550	15.0	274	40	...	1510	14.6
1902	107,003	3397	31.7	421	123.6	1656	15.5	318	223	5	1438	13.4
1903	117,797	3476	+29.9	431	123.9	1430	12.1	230	162	...	1268	10.7
1904	121,279	3578	29.5	494	138.0	1626	+12.8	308	224	...	1402	11.5
1905	124,126	3588	+28.8	419	116.7	1564	+11.9	325	231	222	1555	12.5
1906	134,605	3674	27.2	484	131.7	1605	12.3	301	200	268	1673	12.4
1907	139,240	3819	27.4	382	100.0	1602	11.5	343	243	307	1666	11.9
1908	143,383	3778	26.3	361	95.5	1545	10.7	368	235	271	1581	11.0
Averages for years 1899 - 1908	118,544	3437	29.1	440	129.7	1557	13.2	266	172	...	1492	12.7
1909	149,283	3791	25.3	336	88.6	1387	9.2	320	201	299	1485	9.9

* Rate calculated per 1,000 of estimated population.

† Amended in accordance with the Annual Summaries of the Registrar General.

NOTES TO (L.G.B.) TABLE 1.

The gross rate includes deaths of persons belonging to other Districts which take place in Public Institutions.

The nett rate is the true one, as it represents the deaths of all Tottenham people, whether they take place within or without the Parish, and is the rate adopted by the Registrar-General, non-residents being always allocated to the district to which they belong.

By the term "Non-Resident," is meant persons brought into the district on account of illness, and dying there ; and by the term "Resident" is meant persons who have been taken out of the District on account of illness, and have died elsewhere.

- 1.—Institutions within the District receiving sick and infirm persons from outside the District :—

Prince of Wales's General Hospital, The Green.

Metropolitan Asylums Board (North Eastern) Hospital, St. Ann's Road.

Jewish Home and Hospital for Incurables, High Road.

- 2.—Institutions outside the District receiving sick and infirm persons from the District :—

South Mimms Small-pox Hospital.

Edmonton Union.

Metropolitan Asylums Board Hospitals (other than North Eastern).

- 3.—Other Institutions, the deaths in which have been distributed among the several localities in the District.

Great Northern Hospital.

King's College Hospital.

Middlesex Hospital.

St. Bartholomew's Hospital.

Children's Hospital, Great Ormond Street, W.

St. Luke's House, Kensington.

Edmonton Workhouse.

St. Pancras Infirmary.

Hackney Infirmary.

Shoreditch Infirmary.

Queen's Hospital, Bethnal Green.

St. Thomas's Hospital.

Metropolitan Hospital for Ear, Nose and Throat.

Colney Hatch Asylum.

German Hospital, Hackney.

Napsbury Asylum.

Middlesex County Asylum Annexe, Upper Tooting.

Guy's Hospital.

Metropolitan Hospital.

London Hospital.

Royal Free Hospital.

Charing Cross Hospital.

University College Hospital.

Cancer Hospital, Chelsea.

Chelsea Hospital for Women.

Royal Chest Hospital.

London Temperance Hospital.

Hackney Maternity Hospital.

Central London Throat Hospital.

Homœopathic Hospital.

St. Peter's Hospital.

Seaman's Hospital.

Mount Vernon Hospital.

Lock Hospital.

City of London Lying-In Hospital.

National Hospital, Queen Square.

City of London Hospital.

Camberwell House.

St. Joseph's Home, Chiswick.

St. Joseph's Hospice, Hackney.

L.G.B. TABLE II.

Vital Statistics of separate Localities in 1909 and previous years.
Name of District—TOTTENHAM.

NAMES OF LOCALITIES.	TOTTENHAM (Whole District).				HARRINGAY				WEST GREEN				ST. ANN'S				HIGH CROSS				MIDDLE				LOWER			
	Population esti- mated to middle of each year.	Births registered	Deaths at all ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered	Deaths at all ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered	Deaths at all ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered	Deaths at all ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered	Deaths at all ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered	Deaths at all Ages.	Deaths under 1 year.
YEAR	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1899	96,489	2,925	1,466	478																								
1900	98,268	2,964	1,527	501	+																							
1901	103,243	3,179	1,550	431																								
1902	107,003	3,397	1,656	421	16,008	586	190	46	11,650	305	128	31	20,776	824	333	104	19,908	575	266	76	20,404	616	284	90	18,260	491	237	61
1903	117,797	3,476	1,430	431	19,275	563	166	51	12,281	337	114	51	24,881	781	346	135	22,327	621	190	60	20,740	696	224	77	18,293	471	228	67
1904	121,279	3,578	1,626	494	20,009	596	175	67	12,629	348	119	39	24,918	804	316	111	22,519	618	268	101	20,221	717	292	97	18,983	495	232	79
1905	124,126	3,588	1,564	419	20,279	566	186	33	14,715	377	165	40	22,796	822	372	113	20,459	602	303	88	25,312	719	297	96	20,565	502	232	49
1906	134,605	3,674	1,605	484	21,032	623	218	62	17,058	392	178	40	25,088	712	371	109	21,512	634	249	90	28,540	769	337	113	21,375	544	275	70
1907	139,240	3,819	1,602	382	21,836	573	215	36	18,428	482	174	33	25,456	792	341	82	22,191	666	269	66	28,683	808	381	90	22,646	528	286	75
1908	143,383	3,778	1,545	361	21,537	570	208	50	18,796	472	148	34	26,178	798	381	100	24,303	641	276	57	29,294	755	324	69	23,275	542	244	51
Averages of Years 1899 to 1908.	118,544	3,437	1,557	440	19,996	582	194	49	15,079	359	146	38	24,299	791	351	107	21,888	618	266	76	24,742	725	305	90	20,485	510	246	64
1909	149,283	3,791	1,485	336	21,930	535	196	38	20,004	481	148	32	26,689	788	319	70	25,792	666	309	81	31,256	764	278	66	23,612	557	235	49

† District re-divided 1902, the various averages are for the 7 years, 1902 to 1908.

L.G.B. TABLE III.—Table of cases of infectious disease coming to the knowledge of the Medical Officer of Health during the year 1909, in the Tottenham Urban Sanitary District, classified according to diseases, ages, and localities.

NOTIFIABLE DISEASES.	CASES NOTIFIED IN WHOLE DISTRICT.						TOTAL CASES NOTIFIED IN EACH LOCALITY.						No. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.							
	At all Ages.	At Ages—Years.					1 Harrin- gay.	2 West Green.	3 St. Ann's.	4 High Cross.	5 Middle.	6 Lower.	1 Harrin- gay.	2 West Green.	3 St. Ann's.	4 High Cross.	5 Middle.	6 Lower.	7 Total.	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.														65 and up-wards.
Small-pox ...	2	1	...	...	1	...	..	...	2	...	...	...	..	...	..	2	...	...	..	2
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria ...	136	4	59	62	6	5	20	19	31	22	27	17	17	12	22	20	19	10	100	21
Membranous Croup		6	3	9	9	48	11	13	15	14	24	10	...	...	...	...	...	...	...	
Erysipelas ...	87	5	166	330	47	21	53	83	102	75	155	101	46	56	93	68	114	92	469	...
Scarlet Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhus Fever ...	...	2	7	5	8	...	3	2	6	3	6	2	2	1	5	2	3	1	14	...
Enteric Fever ..	22	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Relapsing Fever ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever ...	5	...	...	...	...	5	1	2	1	...	...	1	...	...	1	...	...	...	1	...
Totals ...	821	18	235	406	71	79	88	119	155	116	212	131	65	69	121	92	136	103	586	...

NOTES TO (L.G.B.) TABLE IV.

(a) In this table all deaths of "Residents" occurring in public institutions whether within or without the district, are included with the other deaths in the columns for the several age groups (columns 2-8). They are also, in columns 9-13, included among the deaths in their respective "Localities" according to the previous addresses of the deceased as given by the Registrars. Deaths of "Non-Residents" occurring in public institutions in the district are in like manner excluded from columns 2-8 and 9-13 of this table.

(b) All deaths occurring in public institutions situated within the district, whether of "Residents" or of "Non-Residents," are, in addition to being dealt with as in note (a), entered in the last column of this table. The total number in this column equals the figures for the year in column 9, Table 1.

(c) Under the heading of "Diarrhœa," are included deaths certified as from diarrhœa, alone or in combination with some other cause of ill-defined nature; and also deaths certified as from

Epidemic enteritis;
 Zymotic enteritis;
 Epidemic diarrhœa, Summer diarrhœa;
 Dysentery and dysenteric diarrhœa;
 Choleric diarrhœa, cholera nostras
 (in the absence of Asiatic cholera).

Deaths from diarrhœa secondary to some other well-defined disease are included under the latter.

Under the heading of "Enteritis" are included deaths certified as from Gastro-Enteritis, and Muco-Enteritis, excepting in cases where I have found, on enquiry, reason to include such deaths—especially those of infants—under the specific term of "Diarrhœa."

Under the headings of "Cancer" and "Puerperal Fever" are included all registered deaths from causes comprised within these general terms.

L.G.B. TABLE V.

Table of INFANTILE MORTALITY during the Year 1909.—Deaths from stated Causes in Weeks and Months under, one Year of Age.

CAUSE OF DEATH.		Under 1 wk.	1-2 Wks.	2-3 Wks.	3-4 Wks.	Total under 1 month.	1-2 Mths.	2-3 Mths.	3-4 Mths.	4-5 Mths.	5-6 Mths.	6-7 Mths.	7-8 Mths.	8-9 Mths.	9-10 Mths.	10-11 Mths.	11-12 Mths.	Total Deaths under One Year.
Common Infectious Diseases.	Small-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chicken-pox...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	2	...	5
	Measles ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Scarlet Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	2
Diarrhœal Diseases.*	Diphtheria (including Membranous Croup)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Whooping Cough ...	...	...	...	...	...	2	1	1	1	1	2	3	2	1	1	1	11
	Diarrhœa, all forms ...	...	...	...	...	...	2	3	2	1	4	...	2	1	1	...	...	17
	Enteritis, Muco-enteritis, Gastro-enteritis	...	...	...	...	...	3	...	1	1	...	...	2	1	...	...	...	8
Wasting Diseases.	Gastritis, Gastro-intestinal Catarrh ...	...	...	...	...	...	2	4	1	...	...	...	2	...	1	...	...	14
	Premature Birth ...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	52
	*Congenital Defects ...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	14
	Injury at Birth ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
Tuberculous Diseases.	Want of Breast-milk, starvation ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Atrophy, Debility, Marasmus ...	...	...	...	...	...	7	5	6	2	5	2	...	2	1	3	1	56
	*Tuberculous Meningitis ...	...	...	...	...	...	1	...	...	...	3	1	1	2	...	...	...	9
	Tuberculous Peritonitis: Tabes Mesenterica	...	...	...	...	...	...	3	...	...	...	...	...	...	...	1	...	5
Other Causes.	*Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2
	Erysipelas ...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	4
	Syphilis ...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
	Rickets ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Causes.	Meningitis (<i>not Tuberculous</i>)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Convulsions ...	...	...	...	...	...	2	...	1	5	1	3	1	1	1	...	...	21
	Bronchitis ...	...	...	...	...	...	7	2	2	1	4	...	2	2	4	3	1	31
	Laryngitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Causes.	Pneumonia ..	...	...	...	...	...	7	5	4	1	3	2	...	3	4	...	4	34
	Suffocation, overlying	...	...	...	...	...	2	...	...	1	...	...	...	...	...	...	...	3
	Other Causes	...	...	...	...	...	7	2	1	1	1	...	2	1	...	3	4	44
		72	23	19	10	124	49	25	20	13	22	11	14	14	15	14	14	336

* See Notes to Table IV.

Mortuary Table for the Year 1909.

Bodies Admitted.				No. of Post Mortems.			Number of Inquests.	Deaths from Violence	Deaths from Drowning
Month.	Males	Females	Total	Males	Females	Total			
January ...	15	12	27	13	12	25	27	4	0
February ...	15	10	25	11	8	19	24	3	0
March ..	14	5	19	9	3	12	17	4	1
April ...	8	2	10	5	1	6	8	3	1
May ...	5	6	11	3	3	6	8	4	2
June ...	6	5	11	3	5	8	7	3	1
July ...	7	2	9	2	2	4	5	0	2
August ...	12	5	17	7	3	10	14	6	1
September...	4	5	9	3	1	4	7	2	0
October ...	10	5	15	8	4	12	15	2	0
November ...	13	13	26	11	8	19	24	2	0
December ...	9	14	23	4	11	15	19	3	1
Total ...	118	84	202	79	61	140	175	36	9

The following List gives the Causes to which Deaths were attributed by the Coroner's Juries.

Syncope ...	46	Septic Poisoning ...	1
Pneumonia ...	22	Scalds ...	1
Phthisis ...	4	Conjestion of Lungs ...	2
Suffocation ...	4	Bronchitis ...	5
Convulsions ...	14	Peritonitis ...	3
Marasmus ...	2	Tetanus! ...	3
Burns ...	6	Gastritis ...	1
Fractured Skull ...	4	Ulcerated Stomach ...	1
Diarrhœa ...	1	Suicides :—	
Shock ...	14	Drowning ...	9
Apoplexy ...	6	Hanging ...	1
Meningitis ...	4	Poisoning ...	3
Inanition ...	2	Shooting ...	1
Stillborns ...	4	Murder ...	2

COMPARISON OF THE HEALTH OF THE DIFFERENT WARDS.

St. Ann's Ward :—The highest General Death Rate was once more chronicled in this ward, but it is pleasant to note that it shews a very considerable reduction upon that which formerly obtained, as it amounted only to 11·96, as compared with 14·54 in 1908, 13·39 in 1907, 14·78 in 1906, and 16·31 in 1905. The diseases responsible for the largest number of deaths were Bronchitis (43) as against 25 in 1908, Heart Diseases (28) as compared with 38, and Pneumonia (24) as contrasted with 41 last year. Tuberculous Diseases other than Phthisis, were accountable for 22 deaths, as compared with 23 in 1908. Phthisis was responsible for 17 deaths, Cancer for 16, Premature Birth for 12, Whooping Cough for 9, and Diarrhœa and Accidents for 6 each, while there were 6 deaths from Diphtheria, as compared with 1 in 1908, 4 from Alcoholism, 3 from Measles, 3 from Puerperal Fever, and 1 from Scarlet Fever, as contrasted with 2, 25, 2, and 2 in the previous year.

Middle Ward :—The General Death Rate amounted to 10·77, as contrasted with 11·35 in 1908, 13·28 in 1907, 11·77 in 1906 and 11·72 in 1905. The causes of the greatest number of deaths in the Ward were Heart Diseases (35), Bronchitis (26), Pneumonia (21), Cancer (20), Tuberculous Diseases other than Phthisis (16), and Phthisis (13). There were 5 deaths from Scarlet Fever, as compared with 3 last year, 2 from Measles, as compared with 7, 3 from Diphtheria as compared with 6, but no death from either Typhoid or Puerperal Fever.

Lower Ward :—The General Death Rate for the Lower Ward was 9·95, as compared with 10·40 in 1908, 12·62 in 1907, 12·86 in 1906, and 11·28 in 1905. The chief causes of death in the Ward were Pneumonia (25), Tuberculous Diseases other than Phthisis (21), Cancer (20), Bronchitis (19), Heart Diseases (18), and Phthisis (6). There was 1 death from Measles, as compared with 2 for last year, 4 deaths from Diphtheria, which is similar to last year's number, while there was no death from Scarlet Fever, Typhoid Fever or Puerperal Fever in the Ward.

High Cross Ward :—The General Death Rate was 9·88, as against 10·13 in 1908, 12·12 in 1907, 13·66 in 1906, and 14·81 in 1905. The principal death factors were Heart Diseases (35), Pneumonia (26), Tuberculous Diseases other than Phthisis (25), Bronchitis (25), Phthisis (16), Cancer (16), and Diarrhoea (6). There were 6 deaths from Whooping Cough, as compared with 3 in 1908, 4 deaths from Measles, as compared with 7, 1 death from Scarlet Fever, as compared with 2, and 3 deaths this year from Diphtheria, whereas last year there were 4 ; in 1908, however, there were 3 deaths from Typhoid Fever, where this year there was only 1. 4 deaths were this year attributed to Alcoholism in this Ward.

Harringay Ward :—The General Death Rate for the Harringay Ward was 8·93 per 1,000, as compared with 9·65 in 1908, 9·84 in 1907, 10·36 in 1906, and 9·17 in 1905. The diseases responsible for the greatest number of deaths were Heart Diseases (24), Bronchitis (16), Tuberculous Diseases other than Phthisis (16), Cancer (14), Pneumonia (10), and Phthisis (9). There were 6 deaths from Diphtheria (as compared with

1 in 1908), 4 deaths from Measles (as compared with a similar number last year), 2 deaths from Scarlet Fever (as compared with 1), 3 deaths from Whooping Cough (compared with none last year). There was, however, no death from Diarrhoea this year, whereas there were 5 deaths in 1908, so also there was no death from Typhoid, whereas there were 3 in that year.

West Green Ward:—The General Death Rate in the Ward has improved even on the very satisfactory one of 1908, amounting to only 7·39 per 1,000, as compared with 7·87 last year, 9·44 for 1907, 10·43 for 1906, and 11·21 for 1905; West Green, accordingly, continues to maintain the premier position as regards the General Death Rate. Of the 148 deaths which occurred in the Ward during the 12 months, Cancer was accountable for 14 (as against 9 in 1908), Bronchitis, Pneumonia and Heart Diseases for 13 each, Phthisis for 8, Tuberculous Diseases other than Phthisis for 7, and Premature Birth for 6 (as against 13 in 1908). There was one death from Scarlet Fever, as compared with 4 last year, and no death from Diphtheria, Typhoid Fever or Puerperal Fever, as against 3, 0 and 0 respectively in 1908.

SCHOOLS AND SCHOOL HYGIENE.

The following limited information is given in this Report in accordance with the request of the Local Government Board, and I would refer those desiring further particulars upon this subject to my Annual Report to the Education Committee.

Accommodation:—The accommodation in the provided schools of the Tottenham Education Committee is for 17,303

children, and in the non-provided schools for 2,230 children, giving a total accommodation of 19,533 ; there were on rolls 22,744 children, that is 3,211 in excess of the accommodation ; it should be added, however, that the average attendance only amounts to 20,595.

Sanitary Condition :—Speaking generally, the sanitary condition of the Public Elementary Schools in the district is fairly satisfactory. The system which obtains in the more crowded schools of having two to four classes in the Halls, is highly objectionable. In some of the schools, too, the cloak room accommodation is very insufficient. The schools are adequately provided with drinking water, which is supplied by the Metropolitan Water Board. All the schools are periodically visited, and special attention given to the question of their due ventilation. The following table shows the number of school children isolated by my directions during the year, owing to the fact that they either suffered from the diseases or ailments named themselves, or lived in houses in which an infectious case had occurred :—

1. Cases notified to me under the provisions of the Infectious Disease Notification Acts 1889-1899 :—

Scarlet Fever	...	...	...	460
Diphtheria and Mem. Croup			...	152
Typhoid Fever	...	...	...	12
Erysipelas	...	..	...	5

2. Cases voluntarily notified to me from schools, etc :—

	No.		No.
Measles	637	German Measles	9
Whooping Cough	452	Croup	6
Ringworm	316	Mumps	514
Chicken Pox	449	Diseases of Throat	225
Verminous	813	Glandular Enlargement	31
Dirty	12	Bronchial Catarrh	33
Eye Diseases	67	Broncho Pneumonia	4
Influenza	252	Headache	16
Tuberculosis (Lungs)	4	Gastritis	1
Abscess	1	Jaundice	4
St. Vitus Dance	16	Blood Poisoning	1
Myxœdema	1	General Weakness	138
Neurasthenia... ..	1	Nervous Debility	2
Accidents	6	Neuralgia	1
Skin Diseases	497	Congestion of Liver	1

It has not been found necessary to close any School during 1909 on account of epidemic disease, although children from particular houses have, from time to time, been excluded.

ARRANGEMENTS FOR MEDICAL INSPECTION OF SCHOOL CHILDREN UNDER SECTION 13 OF THE EDUCATION (ADMINISTRATIVE PROVISIONS) ACT, 1907 :—

Miss Sophia Seekings, M.D., acts as Assistant School Medical Officer, and carries out the inspections under the above Act in the Girls' and Infants' Departments, whereas the Medical Officer of Health examines the elder boys. The co-ordination established between the Public Health Department proper and the medical work carried on in the schools is of immense advantage, both from a hygienic and an economical standpoint. Miss N. O'Donnell, the first School Nurse appointed in Tottenham, resigned her position here to take up duty under the London County Council; her successor has not yet been appointed, but Miss Sinclair is doing temporary duty, and giving every satisfaction to the Assistant Medical Officer and myself. I have advised the appointment of a second nurse, so that verminous children may be dealt with more efficiently than is possible when there is only one School Nurse for 22,744 children.

FACTORY AND WORKSHOP ACT, 1901.

In compliance with section 132, I beg to submit a *resumé* of the work effected during the year—under the provisions of the above Act—in the form prescribed by the Home Office :—

1.—*Inspection.*

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR INSPECTORS OF
NUISANCES.

Particulars.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (including Factory Laundries)	214	...	...
Workshops (including Workshop Laundries)	632	20	...
Workplaces			
Total	846	20	...

2.—*Defects Found.*

Particulars.	Number of Defects.			Number of Prosecutions.
	Found	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts—*</i>				
Want of cleanliness	9	9	...	...
Want of ventilation	...	...	...	...
Overcrowding	...	...	...	...
Want of drainage of floors	1	1	...	...
Other nuisances	16	16	...	...
†Sanitary accommodation	{insufficient	1	...	...
	{unsuitable or defective	1	...	...
	{not separate for sexes	...	...	...
<i>Offences under the Factory & Workshop Act:</i>				
Illegal occupation of underground bake-house (s. 101)	...	...	...	...
Breach of special sanitary requirements for bakehouses (s.s. 97 to 100)	11	11	...	...
Other offences	...	...	...	...
Total	39	39	...	...

* Including those specified in sections 2, 3, 7 and 8, of the Factory and Workshop Act as remediable under the Public Health Acts.

† For districts not in London state here whether section 22 of the Public Health Acts Amendment Act, 1890, has been adopted by the District Council; and if so what standard of sufficiency and suitability of sanitary accommodation for persons employed in factories and workshops has been enforced.

OUTWORKERS' LISTS, SECTION 107.									
Nature of Work.	Lists received from Employers.				Numbers of Addresses of Outworkers received from other Councils.	Numbers of Addresses of Outworkers forwarded to other Councils.	Prosecutions.		Number of Inspections of Outworkers' Premises.
	Twice in the year.		Once in the year.				Failing to keep or permit inspection of lists.	Failing to send lists.	
	Lists.	Outworkers	Lists.	Outworkers					
Wearing Apparel— (1) making, &c.	6	136	6	18	739	53	...	...	169
(2) cleaning and washing ...	...	...	...	...	...	...	...	...	...
Lace, lace curtains and nets...	...	...	...	...	...	...	...	...	...
Artificial Flower making ...	...	...	...	...	5	...	...	...	...
Furniture and Upholstery ...	...	...	...	...	4	...	...	...	...
Fur pulling ...	...	...	...	...	...	...	...	...	...
Umbrellas ...	...	...	...	...	...	...	...	...	...
Paper Bags and Boxes ...	...	...	...	...	24	...	...	...	...
Brush making ...	...	...	...	...	19	...	...	...	...
Stuffed Toys ...	...	...	...	...	3	...	...	...	...
File making ...	...	...	...	...	...	...	...	...	...
Electro Plate ...	...	...	...	...	...	...	...	...	...
Cables and Chains ..	...	...	...	...	...	...	...	...	...
Anchors and Grapnels ..	...	...	...	...	...	...	...	...	...
Cart Gear ...	...	...	...	...	...	...	...	...	...
Locks, Latches and Keys ...	...	...	...	...	...	...	...	...	...

The figures required in columns 2 and 3 are the *total* number of lists received from employers who sent them both in February and August as required by the Act, and of the entries of names of outworkers in those lists. They will, therefore, usually be double of the number of such employers and (approximately) double of the number of individual outworkers whose names are given, since in February and August lists of the same employer the same outworkers' names will often be repeated.

4.—*Registered Workshops.*

Workshops on the Register (s. 131) at the end of the year.	Number.
Workshops	205
Laundries	45
Bakehouses	58
Total number of Workshops on Register... ..	338

5.—*Other Matters.*

Class.	Number.
Matters notified to H.M. Inspector of Factories:—	
Failure to affix Abstract of the Factory and Workshop Act (sec. 133)	10
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshops Act (s. 5). }	5
Notified by H.M. Inspector	
Reports (of actions taken) sent to H.M. Inspector	—
Other	1
Underground Bakehouses (s. 101):—	
Certificates granted during the year	—
In use at the end of the year	7

NOTE.—The Factory and Workshop Act, 1901 (s. 132), requires the Medical Officer of Health in his Annual Report to the District Council to report specifically on the administration of that Act in workshops and workplaces, and to send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State (Home Office).

WORKSHOPS, WORK-PLACES AND HOMES OF OUT-WORKERS.

The Workshops, Work-places and Homes of Out-workers in the district have been kept under continued surveillance. I regard this as a very important branch of Public Health work, and the female staff has been of incalculable service in paying surprise visits and helping generally to secure a hygienic standard in all places where female workers are employed. Whenever a case of infectious disease occurs at any of the addresses notified to your Medical Officer of Health under the provisions of the Factory and Workshop Act, 1901, or otherwise, isolation is immediately enforced, and further work forbidden upon the premises until the rooms, clothing, etc., have been duly disinfected ; due notice is given to employers, and all contacts quarantined.

CHIEF LOCAL INDUSTRIES.

The main industries carried on in Tottenham are building, cabinet making, pencil making, the manufacture of stationery and india rubber, brewing, boot and shoe making, the manufacture of sweets, stick and umbrella making, printing, silk-spinning, whalebone cutting, dress and blouse making, tie making, tailoring and wig making.

LAUNDRIES.

Forty-five Public Laundries exist in Tottenham, an increase of 10 on last year's number. They have all been periodically inspected, and notices served with regard to any defects found therein; the reasonable requirements of the Department have invariably been complied with.

It is unfortunate that many ordinary small dwelling-houses should still continue to be used as laundries without being fitted structurally for special work to be carried on therein, for it is almost impossible to secure adequate ventilation and lighting in such places.

BAKEHOUSES.

The 66 bakehouses in the district have been systematically inspected, and are in a fairly satisfactory condition; two bakehouses, however—one of which is too small to accommodate the three men employed therein, and the other of which has not been kept in a cleanly condition—are at present receiving special attention from this Department.

FOOD INSPECTIONS.

1648 inspections have been made by the Ward Inspectors and your Medical Officer of Health; the following list gives the distribution of the visits amongst the different classes of food purveyors :—

Butchers' Shops	...	...	...	709
Fishmongers' Shops	...	...	...	448
Fruiterers' and Greengrocers' Shops	...			491

The inspections are not carried out at definite intervals, but as unexpectedly, and, it may be added, as unobtrusively as possible, at various hours of the day. Much meat, fish and fruit of poor quality continues to be sold in your district, and the following was the result of the only legal proceedings in connection with unsound meat conducted by me during the past year :—

DATE.	NATURE OF CASE.	RESULT.
October	Sale of Unsound Meat ; Exposure for Sale of Un- sound Meat.	Fined 20/- and costs on each count.

Appended is a list which gives some idea of the character of the foodstuffs condemned from time to time during the year :—

Meat	... carcase of bullock
„	... viscera of an ox
„	... 1 leg of mutton
„	... 10½ lbs. of beef
„	... about 8 lbs. pig's liver, etc.
Fish	... 1 box mackerel
„	... 1 trunk “ fresh ” haddock
„	... 21 lbs. conger eel
„	... 1 case herrings
„	... 4 gals. shrimps
„	... 40 plaice
„	... about 6 lbs. plaice
„	... 4 boxes kippers
„	... 30 soles
„	... 1 box soles
„	... 10 lb. salmon
„	... quantity of winkles
Fruit	... 1 box oranges
„	... 37 oranges
„	... 2 crates bananas
„	... 150 bananas
„	... 100 lb. pears
„	... 5 lb. strawberries
„	... 4 lb. gooseberries
Vegetables	... about 100 lb. potatoes

SLAUGHTER-HOUSES.

15 private slaughter-houses exist in your district; they have all been inspected at irregular intervals, and several improvements have been effected during the year under our direction. Much less slaughtering now takes place in your district than formerly, and a considerably larger proportion of frozen meat is imported and sold.

As we have no special Food Inspector in the Department, it has not been possible to arrange for the systematic supervision of the slaughtering carried on in the 15 premises above alluded to. I am still of opinion that the Council would be wise to appoint a special Food Inspector, when we would be enabled to exercise the surveillance which is so necessary in the act of slaughtering if the public is to be efficiently safeguarded against the dangers of diseased meat.

The carcase of one tuberculous bullock was condemned and destroyed, and several minor portions of the carcase of a pig, amounting to about 8 lbs., were similarly dealt with. Three of the six male Inspectors possess certificates in meat inspection, and the butchers', fishmongers' and fruiterers' premises in their respective wards are frequently visited by the Inspector allocated to the particular ward, acting under my directions, in the ordinary discharge of his duty. Those and similar ones paid by the Medical Officer of Health to the places where inferior meat is sold, are arranged to take place at irregular intervals, so that the tradesmen do not know when to expect a visitation.

DAIRIES, COWSHEDS AND MILKSHOPS.

29 applications (22 from purveyors and 7 from dairymen) have been received during the year for registration under the

Dairies, Cowsheds and Milkshops Order, 1885, which exceeds by 11 the number received in 1908.

There are at present upon the Register 15 Cowkeepers, 47 Dairymen, and 162 Purveyors of Milk.

COWSHEDS, COWS, ETC.

The cowsheds situated in your district are, as a whole, maintained in a fairly satisfactory condition. Frequent supervision, however, is absolutely necessary, more particularly with regard to two cowsheds in the Lower Ward, in order to ensure something like reasonable cleanliness; personally, I am strongly of opinion that it would be to the advantage of Tottenham consumers if we could prevent such untidy persons as the two owners of the premises alluded to in the Lower Ward from keeping cows at all, since I have found from experience that it is almost hopeless to expect much improvement in their methods of keeping cows and dealing with milk.

DAIRIES AND MILKSHOPS.

We have still a number of small general shops retailing milk, although the atmosphere of such places must necessarily be laden with dust.

More than 5,000 gallons of milk are, on an average, daily consumed in Tottenham, about three-fourths of which comes from outside sources, including various farms in other parts of Middlesex, in Essex, Leicestershire, Derbyshire, Suffolk, Staffordshire, Warwickshire, Bedfordshire, Buckinghamshire, etc.

It should be possible for the inhabitants of every municipality to procure pure, clean, fresh cows' milk in their immediate neighbourhood. Germs enter milk through the

dirt of the cowsheds, through careless handling or the improper cleaning of milk pails, bottles, etc., and multiply enormously in short spaces of time. "Pure milk" should mean not alone one having a normal chemical composition, but also one that is clean. Milk sold by the ordinary milkman or small general shop-keeper contains from one to several millions of bacteria in one cubic centimeter (about 16 drops). Fortunately, many bacteria are relatively harmless, nevertheless, their growth to any considerable extent in milk results in taints and other changes which render it unfit for use, and in infants and susceptible individuals may cause gastrointestinal diseases, serious illness, and even death.

When milk is once spoiled it cannot by any known process be made good milk; pasteurization and sterilization are merely methods for its preservation, and the necessity for them is evidence of a contamination which might have been avoided. Dairies should be kept in perfect sanitary condition; cowsheds should be whitewashed and kept scrupulously clean; the health of the cows must be assured, particularly with reference to Tuberculosis; they should be kept carefully groomed, and fed only on wholesome food and clean water. The milkers must themselves be healthy, and before milking should wash their hands carefully and put on a clean milking suit not used for other purposes. Moreover, since the first milk from each cow contains a certain number of bacteria, it should invariably be rejected. The remaining milk should be received in a milking pail through a *small* opening in order to prevent as far as possible the entrance of dirt and dust; after milking it should be at once removed from the cowshed to the dairy-room, strained through a clean cloth, cooled,

bottled and sealed ; it is only by the use of such methods milk will contain the smallest possible number of bacteria. In addition, however, to the immediate cooling, it is necessary that the milk should be *kept* cold, and a refrigerator which is not sufficiently cold, or one which has taints and odours on account of insufficient or improper cleaning or ventilation, will certainly spoil the best milk that can be produced. To summarise, the agents that must be employed if a pure milk is to be had, are shortly, **CLEANLINESS AND COLD.**

FOOD & DRUGS ACT.

Tottenham has not yet sought a Charter of Incorporation, and the County Council accordingly still remains the authority responsible for the administration of the Food and Drugs Act, an arrangement which cannot be considered either effective or economical in a district containing such an enormous number of retail shops.

Your Medical Officer of Health has, however, had several samples of milk taken during the year, 6 of which were sent to the County Analyst ; no adulteration was found to exist in any of the milk specimens ; 8 samples of butter were also subjected to analysis, 2 of which were found to be adulterated.

The Food Inspectors of the County in the Tottenham area took 138 formal and 488 informal samples during 1909, in connection with which 19 prosecutions were instituted, and 17 convictions obtained.

LEGAL PROCEEDINGS TAKEN FOR OTHER CAUSES THAN THE EXPOSURE OR SALE OF UNSOUND MEAT.

The results of the 7 cases in which it was considered necessary to take legal proceedings are given in the appended table :—

DATE.	NATURE OF CASE.	RESULT.
February ...	Defective Drainage	Fined £3.
July ...	Offences against Employment of Children Act, 1903	Fined 10/- for 1st offence, 5/- each in 2 other cases and costs.
.. ...	Adulterated Butter	Fined £3 and costs and analyst's fee.
.. ...	Cleansing and Stripping of Infected Room	Defendant settled out of Court.
August ...	Gipsies occupying Common (2)	10/- and costs each.
October ...	Do. (5)	20/- and costs each.
December ..	(a) Sale of Margarine as Butter (b) Selling Margarine without label	£10 and costs and analyst's fee.

ICE CREAM.

There are 69 Ice Cream premises in the district, most of which are small sweet shops ; all are regularly inspected.

FISH SHOPS.

There are 54 Fish Shops in Tottenham, which are subjected to periodical inspection ; generally speaking, they are maintained in a fairly satisfactory condition.

BUTCHERS' SHOPS.

There are 88 Butchers' Shops in Tottenham, belonging for the most part to small tradesmen who deal in foreign meat only.

PAWNSHOPS.

There are 12 Pawnbrokers' premises in Tottenham, with respect to which the usual precautions have been taken to ensure cleanliness and sanitation ; in addition to the ordinary inspections, special visits are paid whenever a Pawnbroker applies for the renewal of his license, and the latter is only granted upon a favourable report being received from the Medical Officer of Health.

PUBLIC HOUSES.

54 Public Houses and 86 "off-license" premises exist in Tottenham; alterations have been or are being made at our request in six of the urinals attached to Public Houses; as a rule the occupiers have shown themselves willing to meet all the reasonable requirements of this Department.

GIPSY ENCAMPMENTS.

33 Gipsy Encampments were removed by the officers of this Department during 1909, as compared with 58 in 1908, 203 in 1907, and 248 in 1906. Two prosecutions were instituted against Gipsies under the Bye-laws for the regulation of Tottenham Commons made in pursuance of the Metropolitan Commons Supplemental Act, 1882, and convictions obtained in both cases. I have, however, very considerable doubt if such Police Court convictions under Bye-law 16 would have been upheld in the High Courts of Justice, had appeals been lodged. The consequences of the two prosecutions above alluded to have, however, so far been markedly successful, indeed there has since been no trouble with those vagrants.

When proceedings were taken under the Public Health Act in the ordinary way, our experience was similar to that of surrounding districts, the full penalty of £5 being imposed, but as usual the gipsies cleared off, and in several cases subsequently returned under assumed names. As the officer of an adjoining authority has said, "whatever was done was a waste of time and energy, the present powers of the Law, Police and Sanitary Authority being simply unable to deal with them effectually."

COMMON LODGING HOUSES.

The Common Lodging Houses at 2 and 4, Whitehall Street, 1 and 2, Union Row, 258, High Road, and the newly established one at 86, High Cross Road, have been inspected at irregular intervals during the year, special regard being paid at such visits to efficient cleanliness and ventilation.

SMOKE NUISANCE.

We had 10 cases of smoke nuisance during the year, but in no instance were the facts sufficiently strong to warrant a prosecution, having regard to the recent decision against a Sanitary Authority as to what constitutes "dense black smoke." 99 observations have been made and the several warnings given in consequence thereof have been attended to. I have previously suggested that if smoke nuisances are to be effectually abated, the clauses in the Public Health Act referring thereto should be so altered as to omit the word "black" altogether, and make the issue of "dense" smoke a nuisance to be prohibited.

CHEMICAL AND BACTERIOLOGICAL LABORATORY.

77 specimens of Sputum were examined for the Tubercle Bacillus, 70 throat swabs for the Klebs Löffler Bacillus and 31 specimens of blood, taken from doubtful cases of Enteric Fever, were subjected to Widal's test; moreover hairs have been microscopically examined in 88 cases of suspected Ringworm; examinations of those cases were also made when a cure was supposed to have been effected, so that no imperfectly cured children were allowed to return to school.

Examination of Water.—47 quantitative analyses were made of samples of water taken from the domestic supply in different portions of the district.

The following table shows the result of my most recent examination ; the sample was taken from the ordinary supply of a house in the St Ann's Ward.

Colour in a 2ft. Tube	...	...	...	...	...	...	...	...	Nil
Turbidity	...	...	...	...	...	...	...	...	Nil
Odour ..	...	...	...	...	...	...	...	...	Nil

Constituents in Grains per Gallon.

Total Solid Residue	...	...	...	...	...	...	...	27·8
Loss on ignition	...	...	...	...	...	...	...	2·0
Chlorine as Chlorides	...	...	...	...	...	...	...	1·81
Nitrogen as Free Ammonia	...	...	...	...	...	...	...	Trace
„ „ Albumenoid Ammonia	...	...	...	...	...	...	...	·005
Nitrogen present as Nitrates	...	...	...	...	...	...	...	·172
Oxygen absorbed in 4 hours at Air Temperature	...	...	...	...	...	...	...	·0665
Hardness	{ Temporary	..	..	...	...	..	...	9·5 deg.
	{ Permanent	...	...	...	...	...	...	4·1 „
	{ Total	..	...	...	...	...	...	13·6 „

The water is free from metallic pollution.

The water, though decidedly hard, is safe for drinking purposes.

The chemical analyses of the water taken from the houses occupied by certain cases of Enteric Fever have been supplemented by careful bacteriological examination, the results of which, though not positive as regards the presence of the special bacillus, were extremely instructive from other points of view.

14 samples of tinned foods were examined during the year, either for the presence of poisonous metals or for the

detection of imperfect sterilization ; in 4 instances the contents of the "meat" tins were markedly non-sterile, but no metallic pollution was found in any sample.

Milk.—21 samples of milk were examined for various preservatives, with the result that a small quantity of formaldehyde was found to be present in one sample, and some boric acid in 2 others ; 7 samples were quantitatively examined for fat, and the proportion present was found to vary from 3.59 % to 4.61 %.

AIR SAMPLES.

5 samples of air, 4 of which were taken from Schools, were examined during the year, and it is pleasant to be able to record that the results of all the examinations may be considered satisfactory.

REFUSE DESTRUCTOR.

I have received only three complaints of nuisance alleged to arise from the Dust Destructor during the year ; on investigation none of the charges were found to have any material foundation in fact.

The following table gives weekly particulars of the amounts and various kinds of refuse destroyed during 1909

A Yearly Return of Shop and House Refuse Delivered and Destroyed at the Refuse Destructor.

DATE.	Shop Refuse.	Miscellaneous.	House Refuse.	Total Weight.			Loads.						
				Tons.	Cwt.	Qrs.	Lbs.	Shop	Misc.	House	Total		
1909.													
Week ending Jan.	13	...	...	...	...	...	...	...	...	...	...	...	...
"	20	...	...	...	...	...	...	...	...	...	...	...	...
"	27	...	...	...	...	...	...	...	...	...	...	...	...
Feb.	3	...	...	...	...	...	...	...	...	...	...	...	...
"	10	...	...	...	...	...	...	...	...	...	...	...	...
"	17	...	...	...	...	...	...	...	...	...	...	...	...
"	24	...	...	...	...	...	...	...	...	...	...	...	...
Mar.	3	...	...	...	...	...	...	...	...	...	...	...	...
"	10	...	...	...	...	...	...	...	...	...	...	...	...
"	17	...	...	...	...	...	...	...	...	...	...	...	...
"	24	...	...	...	...	...	...	...	...	...	...	...	...
"	31	...	...	...	...	...	...	...	...	...	...	...	...
April	7	...	...	...	...	...	...	...	...	...	...	...	...
"	14	...	...	...	...	...	...	...	...	...	...	...	...
"	21	...	...	...	...	...	...	...	...	...	...	...	...
"	28	...	...	...	...	...	...	...	...	...	...	...	...
May	5	...	...	...	...	...	...	...	...	...	...	...	...
"	12	...	...	...	...	...	...	...	...	...	...	...	...
"	19	...	...	...	...	...	...	...	...	...	...	...	...
"	26	...	...	...	...	...	...	...	...	...	...	...	...
June	2	...	...	...	...	...	...	...	...	...	...	...	...
"	9	...	...	...	...	...	...	...	...	...	...	...	...
"	16	...	...	...	...	...	...	...	...	...	...	...	...
"	23	...	...	...	...	...	...	...	...	...	...	...	...
"	30	...	...	...	...	...	...	...	...	...	...	...	...

A Yearly Return of Shop and House Refuse Delivered and Destroyed at the Refuse Destructor—contd.

DATE.	Shop Refuse.	Miscellaneous.	House Refuse.	Total Weight.	Loads.		
					Shop.	Misc.	House Total.
	Tons. Cwt. Qrs. Lbs.	Tons. Cwt. Qrs. Lbs.	Tons. Cwt. Qrs. Lbs.	Tons. Cwt. Qrs. Lbs.			
1909.							
Week ending July 7	26 11 1 0	...	349 0 1 21	375 11 2 21	19	...	190 209
" " 14	32 2 3 7	...	457 7 1 21	489 10 1 0	23	...	243 266
" " 21	30 18 3 14	...	397 17 0 0	428 18 0 14	23	1	217 241
" " 28	31 11 0 14	...	407 6 2 21	439 8 3 7	23	...	223 246
Aug. 4	23 6 2 7	...	358 19 2 0	380 16 0 7	19	...	186 205
" " 11	28 10 0 0	...	433 16 0 21	467 11 1 7	23	2	234 257
" " 18	28 7 1 0	3 16 2 14	400 8 3 14	432 12 3 0	23	2	226 251
" " 25	30 7 1 21	...	389 13 2 21	420 11 0 14	23	...	221 244
Sept. 1	29 6 0 0	...	396 14 1 21	424 10 1 21	23	...	220 243
" " 8	30 7 1 0	...	399 13 3 7	430 1 0 7	23	...	221 244
" " 15	33 7 2 21	...	394 9 1 14	427 17 0 7	23	...	220 243
" " 22	30 19 0 7	...	419 15 1 0	450 14 1 7	23	...	221 244
" " 27	32 19 2 0	...	406 13 2 0	439 13 0 0	23	1	214 237
Oct. 6	31 9 1 0	2 0 0 0	420 13 0 0	452 2 1 0	23	...	220 243
" " 13	31 17 0 21	...	441 16 1 21	474 13 2 14	23	...	224 247
" " 20	32 1 0 21	...	425 10 1 7	456 11 2 0	23	...	221 244
" " 27	32 18 3 7	...	417 16 2 0	450 15 1 7	23	...	220 243
Nov. 3	32 13 2 21	...	455 12 3 7	486 6 2 0	23	...	222 245
" " 10	33 13 1 21	...	440 7 3 21	474 1 1 14	23	...	221 244
" " 17	32 19 1 14	...	461 15 0 21	494 14 2 7	23	...	236 259
" " 24	33 16 1 14	1 0 0 0	425 9 1 21	459 5 3 7	23	...	220 243
Dec. 1	32 12 3 14	...	451 19 2 21	484 12 2 7	23	...	230 253
" " 8	32 3 1 14	...	455 2 1 21	485 5 3 7	23	...	226 249
" " 15	32 0 3 7	...	458 4 0 7	492 3 3 14	23	...	229 252
" " 22	31 6 1 21	...	463 14 3 14	495 1 1 7	23	...	236 259
" " 29	23 2 2 14	...	323 2 0 0	343 16 2 14	14	...	158 172
1910.							
Jan. 5	33 7 2 21	...	469 15 0 14	503 2 3 7	23	...	229 252
	1585 16 0 7	6 16 2 14	23148 1 2 14	24744 8 0 7	1161	6	11543 12707

During the year the following animals were destroyed :

Cats	...	...	...	...	507
Dogs	...	...	...	...	70
Fowls	...	...	...	...	215
Rabbits	...	...	...	...	82
Goat	...	...	...	...	1

The sum realized from the sale of clinker, tins, bowls, iron, etc , amounted to £222 4s. 5d.

THE MALE INSPECTORS.

The Male Inspectors, generally, discharged their duties in a satisfactory manner and the striking differences observable in the disease and death rates of the various Wards are accounted for by the varying local social conditions.

Owing to the illness and subsequent death of Mr. List, and the delay in appointing his successor, the Inspectorial staff had to work shorthanded for a considerable portion of the year. Mr. J. B. Smith, who was appointed to the vacant post, has now entered upon duty in the West Green Ward.

DRAINS TESTED THROUGHOUT THE DISTRICT DURING THE YEAR.

1950 Drains were examined, of which 1297 were found to be defective ; most of the defects have been already effected, and we are now in communication with owners regarding those which have not had attention.

* * * * *

PERSONAL INSPECTIONS BY THE MEDICAL OFFICER OF HEALTH.

Your Medical Officer of Health has, in addition to 829 visits paid either in consequence of complaints received, or

in connection with infectious disease, made 213 "house to house" inspections proper throughout the district, viz. :—

43 in the St. Ann's Ward, 30 in Haringay, 32 in West Green, 38 in the Lower Ward, 32 in the High Cross and 38 in the Middle Ward.

The defects found were mainly as follows :—dirty walls and ceilings, imperfect roofs and gutters, defective dust receptacles, overcrowding, and defective w.c.'s and soil pipes.

The requirements of this Department to remedy those defects have been duly carried out.

The Medical Officer of Health has also paid 179 visits—in conjunction with one or other of the Ward Inspectors—to premises where defective drainage, overcrowding, or other nuisances were found existing to such a serious extent as to require compulsory abatement.

HARRINGAY WARD (MR. W. REDSTON).

House to house inspections ...	319	Premises cleansed, etc. ...	64
Re-inspections ...	2466	Ventilation below floor provided	29
Drains examined, tested, etc.	276	Smoke observations ...	35
„ unstopped ...	31	Overcrowding ...	1
„ re-constructed ...	72	Accumulations of refuse ...	19
Soil pipes and drains ventilated	6	Visits in connection with cases	
Disconnecting traps inserted ...	6	of infectious disease ...	252
R.W. pipes, wastes, etc., dis-		Rooms inspected after disinfection	65
connected ...	29	Other nuisances, etc. ...	23
Dust bins repaired or provided...	40	Factories, No. of inspections ...	65
Roofs repaired ...	59	Workshops & workplaces „	111
Gutters repaired ...	46	Laundries „	57
Cisterns cleaned, repaired, etc.	29	Dairies, etc. „	211
W.C. new apparatus provided ...	32	Cowsheds „	12
„ repaired, cleaned, etc. ...	27	Bakehouses „	12
„ ventilated ...	1	P.H. urinals „	427
„ water fittings repaired ...	29	Stables and mews „	409
New sinks provided ...	2	Marine Stores „	4
Sink wastes repaired ...	24	Complaints investigated ...	33
Wash-house floors repaired ...	19	Appointments ...	151
Yards paved and drained ...	59		

HIGH CROSS & WEST GREEN WARDS (MR. W. C. PORTMAN & MR. A. LIST).

House to house inspections ...	348	Visits in connection with cases	
Re-inspections	1775	of infectious disease	233
Drains examined, tested, etc. ...	366	Rooms inspected after disinfection	218
„ unstopped	20	Other nuisances, etc.	—
„ Reconstructed	135	Laundries, number of inspections	5
Soil pipes and drains ventilated	25	Common lodging houses „ ...	21
R.W. pipes, wastes, etc., disconnected and repaired	28	Factories „ ... }	23
Dust bins repaired or provided	38	Workshops & workplaces „ ... }	37
Roofs repaired	63	Dairies, etc. „ ... }	28
Gutters „		Cowsheds „ ... }	59
Cisterns cleaned, repaired, etc....	7	Bakehouses „ ...	4
W.C. new apparatus provided ...	59	P.H. urinals „ ...	41
„ repaired, cleaned, etc. ...	65	Stables and mews „ ...	5
Yards paved and drained	109	Slaughter-houses „ ...	7
Forecourts rendered	54	Brooks & watercourses insp'ctd.	2
Premises cleansed, etc.	109	Schools „ ...	1
Ventilation below floor provided	3	Ice cream makers' premises „ ...	1
Smoke observations	29	Milk samples taken	185
Overcrowding	4	Butter „	144
Accumulations of offensive matter removed	6	Complaints investigated	
		Appointments	

ST. ANN'S WARD (MR. W. P. WEST).

House to house inspection	435	Smoke observations	11
Re-inspections	2357	Overcrowding	14
Drains examined, tested, etc. ...	504	Accumulation of refuse	9
„ unstopped	55	Gipsies removed	4
„ repaired & reconstructed	27	Houses closed	—
Soil pipes and drains ventilated	11	Visits in connection with cases	
Disconnecting traps inserted ...	5	of infectious disease	423
R.W. pipes, sink-wastes, etc., disconnected	9	Rooms inspected after disinfection	143
Dust bins provided	59	Other nuisances	76
Roofs repaired	22	Factories, number of inspections	103
Gutters repaired	18	Workshops „ ...	201
Cisterns cleaned, repaired, etc....	12	Laundries „ ...	45
W.C. new apparatus provided ...	18	Dairies, etc. „ ...	96
„ repaired, cleaned, etc. ...	19	Bakehouses „ ...	53
„ ventilated	4	P.H. urinals „ ...	75
„ water fittings repaired ...	66	Stables and mews „ ...	201
Yards paved and drained	42	Slaughter-houses „ ...	38
Forecourts rendered	10	Schools „ ...	50
Premises cleansed, etc.	93	Complaints investigated	78
Ventilation below floors provided	16	Appointments	234

MIDDLE WARD (MR. H. W. MILLER).

House to house inspections ...	323	Schools ...	9
Re-inspections ...	1859	Gipsies removed ...	0
Drains examined, tested, etc....	360	Houses closed (unfit) ...	0
,, unstopped ...	22	Visits in connection with cases	
,, re-constructed ...	53	of infectious disease ...	424
Soil pipes and drains ventilated	53	Rooms inspected after disinfection	210
Disconnecting traps inserted ...	3	Other nuisances, etc. ...	50
R.W. pipes, wastes, etc., disconnected ...	43	Laundries, number of inspections	4
Dust bins repaired or provided	53	Factories, workshops and	
Roofs repaired ...	18	workplaces ,, ...	36
Gutters repaired ...	17	Dairies, etc. ,, ...	28
Cisterns cleaned, repaired, etc.	43	Cowsheds ,, ...	21
W.C. new apparatus provided...	31	Bakehouses ,, ...	31
,, repaired, cleaned, etc. ...	17	P.H. urinals ,, ...	83
,, ventilated ...	5	Stables and mews ,, ...	59
,, water fittings repaired ...	25	Slaughter-houses ,, ...	7
Yards paved and drained ...	79	Complaints investigated ...	43
Premises cleansed, etc. ...	123	Appointments... ..	77
Ventilation below floor provided	3	Theatres, etc. ...	24
Smoke nuisances ...	12	Water samples taken ...	8
Overcrowding ...	5	Brooks inspected ...	34
Accumulations of refuse ...	7		

LOWER WARD (MR. J. A. SHILLITO).

House to house inspections ...	303	Smoke nuisances ...	—
Re-inspections and appointments	1688	Overcrowding ...	5
Drains examined, tested, etc. ...	434	Accumulation of refuse ...	4
,, unstopped ...	104	Gipsies removed ...	85
,, re-constructed ...	78	Houses closed (unfit) ...	—
Soil pipes and drains ventilated	107	Visits in connection with cases	
Disconnecting traps inserted ...	39	of infectious disease ...	393
R.W. pipes, wastes, etc., disconnected ...	30	Rooms inspected after disinfection	69
Dust bins repaired or provided	78	Other nuisances, etc. ...	—
Roofs repaired ...	32	Factories, Number of inspections	37
Gutters ,, ...	31	Workshops & workplaces ,, ...	75
Cisterns cleaned, repaired, etc.	84	Common lodging houses ,, ...	50
W.C. new apparatus provided ...	78	Laundries ,, ...	31
,, repaired, cleaned, etc. ...	34	Dairies, etc. ,, ...	60
,, ventilated ...	2	Cowsheds ,, ...	27
,, water fittings repaired ...	59	Bakehouses ,, ...	51
Yards paved and drained ...	45	P.H. urinals ,, ...	40
Premises cleaned, etc. (ordinary)	97	Stables and mews ,, ...	23
Ditto (after infectious disease)	131	Slaughter-houses ,, ...	51
Ventilation below floor provided	—	Complaints investigated ,, ...	60

TOTTENHAM URBAN DISTRICT.

COUNTY OF MIDDLESEX.—SANITARY WORK, 1909.

Inspections.					Notices.			Dwelling Houses.				Houses let in separate Dwellings or Lodgings.		Common Lodging Houses.		Movable Dwellings, Caravans, Tents, Etc.		Bakehouses.		Slaughter houses.					
Number of Premises Inspected on Complaint.	Number of Premises Inspected in connection with Infectious Diseases.	Number of Premises under periodical Inspection.	Houses Inspected from House-to-House.	Total Number of Inspections and Re-inspections.	Cautinary Notices Given.	Statutory Orders Issued.	Summonses Served.	Convictions Obtained.	Houses, Premises, Etc., Cleansed, Repaired, Etc.	Closed as unfit for Habitation—(a) as result of action under H.W.C. Act, (b) otherwise.	Re-opened after Repairs, Alterations, Etc.	Demolished.	Illegal Underground Dwellings Vacated.	Number Registered under Bye-Laws.	Number of Contraventions.	Number Registered under Bye-Laws.	Number of Inspections made.	Number observed during the year.	Number of Nuisances therefrom abated.	Number Removed from District.	Number in District.	Contraventions of Factory Acts.	Number on Register.	No. of Inspections.	Contraventions of Bye-Laws.
399	608	641	1728	19473	1775	705	10	2	661	..	..	..	..	20	..	7	71	100	89	89	66	..	15	143	..

SANITARY WORK, 1909—CONTINUED.

Cowsheds.		Dairies and Milkshops.		Unsound Food.		Adulterated Food.		Water Supply & Water Service.					Drainage and Sewerage.																										
Number on Register.	77	Number of Inspections.	460	Contraventions of Regulations.	1	Articles or Parcels seized.	2	Articles or Parcels surrendered.	30	Samples taken.	14	Found Adulterated.	2	Percentage of Houses Supplied from Public Water Service.	all	New, Provided.	175	Cleanused, Repaired, Covered, Etc.	..	Draw Taps removed from Cisterns to Mains.	..	Percentage of Houses supplied on Constant System.	..	New, Constructed.	467	Repaired, Supplied with Water, or otherwise Improved	all	Examined, Tested, Exposed, Etc.	1950	Unstopped, Repaired, Trapped, Etc.	732	Waste Pipes, Rain Water Pipes Disconnected, Repaired, Etc.	165	Soil Pipes and Drains Ventilated.	202	Disconnecting Traps or Chambers Inserted.	53	Reconstructed.	565

SANITARY WORK, 1909—CONTINUED.

Drainage and Sewerage.	Disinfection.			Dust.			Sundry Nuisances Abated.							
Percentage of Houses Draining into Sewers.	Rooms Disinfected — (a) Ordinary. (b) Phthisis.	Rooms Stripped and Cleansed.	Articles Disinfected or Destroyed.	New Bins Provided or Repaired.	Periodical Frequency of Dust Removal.	Number of Complaints of Non-removal of Dust.	Overcrowding.	Smoke.	Accumulation of Refuse.	Foul Ditches, Ponds, etc., and Stagnant Water.	Foul Pigs and other Animals.	Dampness.	Yards Re-paved or Repaired.	Other Nuisances.
..	(a) 649 (b) 205	653	14757	263	Weekly	130	30	10	45	6	40	99	290	73

SWIMMING AND WARM BATHS.

The First-Class Swimming Bath, with a water space of 100 ft. by 35 ft., is fitted with the most modern requirements, and is specially adapted for Swimming and Water Polo Competitions and Aquatic Entertainments. The charge for admission is 6d., which includes use of water chute, diving stages, spring board, shower baths, 2 towels, and bathing drawers. Children up to 14 years of age are admitted at half price. The Bath is open from April to September from 7 a.m. to 10 p.m., and on Sundays from 6 a.m. to 10 a.m. On Wednesdays during the Summer, the First-Class Swimming Bath is reserved for the use of Ladies only. The charge for admission to the Second-Class Bath is 2d., and it is open for Men daily, with the exception of Wednesdays (Winter months only), when it is reserved for the use of Women from 7 a.m. to 10 p.m. during the summer months (viz., April to the end of September), and from 9 a.m. to 9 p.m. (Tuesdays, First-Class Day, 6d.) during the Winter months (viz., October to the end of March). It is open on Sundays, for Gentlemen only, during the Summer months from 6 a.m. to 10 a.m., and

during the Winter from 7.30 a.m. to 9.30 a.m. School children are admitted to the Second-Class Swimming Bath at a charge of 1d. The First-Class Swimming Bath is reserved for Ladies on Saturday mornings from 9 to 10.45 at first-class price only.

PRIVATE (SLIPPER) BATHS.

These Baths are open for Ladies and Gentlemen during the Summer months on week-days from 7 a.m. to 10 p.m., and during the Winter months from 9 a.m. to 9 p.m. ; Sundays (Summer) 6 a.m. to 10 a.m., (Winter) 7.30 a.m. to 9.30 a.m. The charge for admission is—First-Class, 6d. ; Second-Class 2d.

School children are admitted between 4.30 and 6 p.m. at a fee of 1d. (hot and cold water and soap provided).

Books containing 12 First-Class Tickets are available for either Swimming or Slipper Baths at a cost of 5s. Tickets are issued and accepted up to within 30 minutes of the time of closing.

* * * * *

Season Tickets are issued for the Large Swimming Bath at a cost of 10/6, and are available from 7 a.m. to 9.30 p.m. on week-days and from 6 to 10 a.m. on Sundays.

OPEN-AIR SWIMMING BATH.

Tottenham Marshes (5 minutes from Park Station, Great Eastern Railway).

This Bath—the largest in England—covering a water area of 180 ft. by 60 ft. is open from 1st May to 30th September (6 a.m. to 9 p.m., and on Sundays from 6 a.m.

to 9 a.m.). The admission charge is 1d., bathing drawers and towels 1d; for School Boys 1d. Season Tickets are available (for this Bath only) at a cost of 5s.

Number of Bathers that used the Baths from April 1st to September 30th, 1909.

Indoor Baths :—

	1st Class Swim	11074			
	„ Club	5017			
Girls and Boys	„ Swim	6574	Total 1st Class Swim		*22665
	2nd Class „	16584			
„ „ „ „		15033			
School Children, Boys...	„	16906	Paid for by Education Com-		
			mittee.		
„ „ Girls...	„	10523	„ „ „ „		
			Total 2nd Class Bath		59046
1st Class Slipper Bath	„	5255			
2nd „ „ „	„	16234			
Boys' 2nd Class Slipper Bath...		1136	Total Gentlemen's Slipper Bath		22625
Ladies' 1st Class Slipper Bath		238			
„ 2nd „ „ „		5360			
Girls' „ „ „ „		952	Total Ladies' Slipper Bath		6550
			Total		<u>110886</u>

Open-Air Bath :—

Boys	...	...	...	3337	
Men	...	...	...	3906	
School Children—Boys	...	7422	Paid for by Education Committee.		
Girls	...	2325	„ „ „		
Total persons using bath...		<u>16990</u>			

* Included in this figure are 2,494 persons admitted by season tickets and 735 children admitted by school passes.

GENERAL, APART FROM STRICTLY SANITARY
IMPROVEMENTS EFFECTED IN THE DISTRICT
DURING 1909.

(Exclusive of those carried out by the Education Committee
and detailed in my report to that body.)

Culverting Moselle Brook from Pymmes Brook to Scotland
Green.

Making up of Bailey's Lane.

Widening of High Road completed.

Removing Urinals from roadway, junction of Philip Lane
and West Green Road, and Philip Lane and High
Road.

Rebuilding Clock Tower, Bruce Castle.

SUMMARY OF WORKS EXECUTED

UNDER THE SUPERVISION OF MR. H. W. CANT (Superin-
tendent of Outdoor Work) DURING 1909.

Repairs to footways and water posts, spreading and
rolling 5,000 tons of granite, repairing 2,845 trenches,
constructing 12 gullies, general repairs to and overhauling of
3 steam rollers, repairs to water troughs and drinking
fountains, 40,500 clearances of gullies.

Parks and Open Spaces.—Repairs to tools and Commons
railing; new entrance gates to Commons; new balcony and
reconstructing Clock Tower and Bell Turret at Bruce Castle;
new gates, railings, etc., Bruce Castle Park.

Public Baths.—Various improvements in flooring, waiting
rooms and lobbies.

Public Health Department.—Removing and refixing in
altered positions the Urinals at High Cross and West Green.

PARTICULARS OF SEWER WORK CARRIED OUT DURING THE YEAR 1909

under the superintendence of Mr. D. Bagshaw :—

Soil Sewers, New and Reconstructed.

Length.	Size.	Remarks.
353 feet.	27 inches.	Concrete Tubes.
2071 „	12 „	Stoneware.
850 „	9 „	„
1788 „	6 „	„

Surface Water Sewers, New and Reconstructed.

Length.	Size.	Remarks.
2296 feet.	12 inches.	Stoneware.
550 „	6 „	„
200 „	4 „	„
52 „	3 „	Agricultural Pipes.

4020 feet of Sewers have been cleared out.

2000 „ „ Culverts „ „

5000 „ „ Brooks „ „

320 „ „ New Soil connections have been made in public roads.

540 „ „ New Surface Water connections have been made in private roads.

2160 „ „ New Drains have been examined and passed.

108 saddles have been fixed in private roads.

358 stoppages have been cleared.

100 new manholes have been built.

6 blind manholes have been built up.

6 new gullies have been put in.

35 defective mains have been repaired.

There are 55 six inch by four inch ventilating shafts and 32 large columns for ventilation of the various sewers. The total length of sewers to be kept clean and in working order is 341 miles.

BUILDING OPERATIONS DURING 1909.

(PARTICULARS SUPPLIED THROUGH MR. W. HALL.)

The number of houses and shops actually erected during the year was 366, as against 502 for the previous year. Buildings of other descriptions numbered 45 as against 68. The number of additions and alterations made to existing buildings was 39, as against 40. Plans were approved for 524 new buildings during the year, as compared with 691 in 1908.

New streets and extensions numbered 10, their total length being 3401 feet.

1637 feet of new soil sewers, and 1611 feet of new surface water sewers have been laid under the supervision of the Building Department.

LONDON COUNTY COUNCIL ESTATE.

Certificates have been given for 56 houses completed during the year : 79 others are in course of construction.

PLANS PASSED FOR NEW BUILDINGS IN TOTTENHAM DURING THE PAST 13 YEARS.

1897	...	...	349
1898	...	...	907
1899	...	...	1,216
1900	...	...	1,366
1901	...	...	1,073
1902	...	...	897
1903	...	...	947
1904	...	...	682
1905	...	...	1,413
1906	...	...	1,010
1907	...	...	770
1908	...	...	691
1909	...	...	524

PRIVATE STREET WORKS.

During the year 1909, 9 private roads were made up under the Tottenham Local Board Act, 1890, at a cost of £5016 4s. 6d., while 6 private roads were made up by the owners and declared public highways.

2 private roads were made up under the Tottenham Local Board Act, 1890, at a cost of £1478 17s. 0d., but up to the present have not been declared public highways.

5 private roads were made up by the owners, but up to the present have not been declared public highways.

Plans for making up 3 private roads have been submitted to the Council.

Total length of Highways, 70 miles, 1 fur. 143 yds.

* * * * *

The following is a list of the private roads made up under the Tottenham Local Board Act, and declared public highways, from 1st January to 31st December, 1909.

			£	s.	d.
Rostrevor Avenue	...	...	952	15	1
Belmont Road (2nd sec.)	...	...	725	17	11
Norfolk Avenue	...	...	669	5	6
Beechfield Road	...	...	741	3	1
Wargrave Avenue	...	...	864	14	8
Cadoxton Avenue	...	...	387	14	9
Boundary Road (3rd sec.)	...	...	485	18	8
Olinda Road	...	...	41	4	0
Chaplin Road	...	...	147	10	10
			£5,016	4	6

Private roads made up by owners and declared public highways :—

Siward Road.
 Waltheof Avenue.
 Dagmar Road.
 Keston Road (1st sec.).
 Kirkstall Avenue.
 Shobden Road.

Private roads made up but not yet declared public highways :—

			£	s.	d.
Ashfield Road	...	...	639	8	0
Fairview Road (rem.)	...	...	839	9	0
			£1478	17	0

Private Roads made up by owners but not yet declared public highways :—

Belmont Avenue.

Crossfield Road.

Thackeray Avenue (Rem.)

Gorleston Road.

Falmar Road.

Plans have been prepared and submitted to the Council with regard to the following private roads :—

Passage between Colina Road and Wordsworth Parade.

White Hart Mews.

Windsor Road.

COLLECTION OF SLOP.

11,126 loads of slop and 7,380 loads of snow were collected and removed during the year.

ELECTRIC LIGHTING OF THE DISTRICT.

Electric Light is now available in every main road, and, in addition to those in the High Road, Green Lanes, Seven Sisters Road and Lordship Lane, 6 arc lamps have been installed in West Green Road, while 5 others are to be erected within the next half-year.

SEWERAGE OF THE DISTRICT.

The main sewers of the district are 4 in number, 3 of which are controlled by the Joint Drainage Committee of Tottenham and Wood Green, the fourth belonging to Tottenham alone.

The mains are over 2,000 feet in length, and connect with the London County Council's sewer in Craven Walk, beyond Bailey's Lane.

I do not consider it necessary to repeat the detailed information regarding the sewage system, which has already appeared in several of my Annual Reports.

HARRINGAY RELIEF SEWER.

The Engineer has submitted plans for the drainage of the Stonebridge Watershed, but owing to difficulties which have arisen, no further progress has since been made with this matter.

HOUSING OF THE WORKING CLASSES ACT, 1890.

It has not been found necessary to take any special action during the year under sections 30-32 of the above Act.

UNDERGROUND CONVENIENCES.

Two Underground Conveniences already exist in the district, one at Seven Sisters Corner, provided with 6 w.c.'s, 12 urinal stalls and 3 washing basins for males, and 3 w.c.'s and 4 washing basins for females, and another at Green Lanes (corner of Alfoxton Avenue), possessing 4 w.c.'s, 9 urinal stalls and 3 washing basins for males, and 3 w.c.'s and 3 washing basins for females. The plans for the new urinal in Bruce Grove, shown me by the Engineer, provide for 4 w.c.'s, 12 urinal stalls and 2 washing basins for males, and 2 w.c.'s and 2 washing basins for females.

An underground convenience is much needed in the neighbourhood of the St. Ann's Road Railway Station.

FIRE STATIONS IN THE DISTRICT.

1. *Central Fire Station, The Green.
2. *Conway Road (Woodlands Park Road).
3. *Coombes Croft House, 712, High Road.
4. St. Ann's (Minster Road), Fire Escape Station only.
5. *Green Lanes (Umfreville Road), Fire Escape Station only.

* Ambulances are kept at each of these Stations and cases containing surgical and medical appliances are carried on all horse and automobile machines.

FIRE ALARM POINTS.

At Junction of High Road and Snell's Park.

- „ High Road and White Hart Lane.
- „ College Road and White Hart Lane.
- „ Langhedge Road.
- „ Chalgrove Road.
- „ Trulock Road and Northumberland Park.
- „ Tebworth Road and Church Road.
- „ Sutherland Road and Park Lane.
- „ Park Lane and Northumberland Park.

Lansdowne Road, corner of High Road.

Kemble Road, near corner.

Poynton Road.

Opposite G.E.R. Station, Bruce Grove.

Sperling Road.

Stoneley South (near Devon Road).

Broad Lane, opposite Post Office.

Colsterworth Road.

The Hale, opposite The Pound.

At Junction of High Road and West Green Road.

- „ West Green Road and Avenue Road.
- „ Braemar Road (opposite Board School).
- „ Culvert Road, facing Braemar Road.
- „ Nassau Road and St. Ann's Road.

Vale Road.

At Junction of Vartry Road and Seven Sisters Road.

Vartry Road, opposite Board School.
 St. John's Road.
 Corner of Holmdale Road.
 Hillside Road, corner of High Road.
 Lealand Road, corner of Fairview Road.
 High Road, opposite South Tottenham Station.
 Opposite St. Ann's Railway Station.
 Moreton Road, corner of Tewkesbury Road.
 Green Lanes, facing Endymion Road.
 ,, ,, Mattison Road.
 ,, ,, St. Ann's Road.
 ,, corner of Fairfax Road.
 ,, facing "Wellington" P.-H., corner of Turnpike Lane.
 West Green Road, opposite Willow Walk.
 Stanmore Road, corner of Carlingford Road.
 West Green Road, corner of Woodlands Park Road.
 West Green Road, corner of Black Boy Lane.
 Philip Lane, corner of Mount Pleasant Road.
 ,, corner of Summerhill road.
 Lawrence Road, opposite Mr. Duncan Tucker's Saw Mills.
 Lordship Lane, opposite Bruce Castle.
 Mount Pleasant Road, facing The Avenue.
 Napier Road.
 Westbury Avenue, Junction with Lordship Lane.
 ,, in middle of.
 ,, near Lakefield Road.
 Hermitage Road, corner of Finsbury Park Avenue.
 St. Ann's Road, opposite Warwick Gardens.
 Rosebery Gardens.
 Rutland Gardens.

FIRE BRIGADE AND APPLIANCES.

There are 25 men all told, five being on duty day and night, the remaining 20 are in bell call, in the various stations, available for turning out at any time.

All Fire Stations are in Telephonic Communication with the Chief

Fire Station, Police Stations, and nearest Turncocks.

The principal appliances consist of—

- 1 Horsed Steamer, capable of throwing 400 gals. per minute.
- 1 Motor Oil Fuel Steamer, throwing 320 gals. per minute.
- 2 Combined Motor Chemical Fire Engines, Hose Tenders, and Fire Escapes.
- 1 Petrol Pumping and Chemical Engine, 100 h.p.
- 1 6in. Manual.
- 1 4in. Curriele.
- 4,000ft. of $2\frac{3}{4}$ in. rubber-lined canvas hose.
- 1,000ft. of $3\frac{3}{8}$ in. ditto.
- 530ft. of hose for Chemical Fire Engine.
- 4 Hand Fire Escapes, always on duty, one being permanently stationed in rear of Hospital.

The Escapes at the principal Stations are Automobile.

4 Horses.

Each Escape carries hose, stand-pipe, and turncock's tools; and jumping sheets, long lines and life lines are carried with all appliances.

In addition to the Fire Alarms there are nearly 40 Telephones connecting all points in the District, and the Brigade is connected with the National Telephone Company's Exchange, No. 100, Tottenham.

CORRESPONDENCE.

The departmental correspondence continues to increase, the number of communications which issued from this department during the year amounting to rather more than 8,500.

PETROL, PETROLEUM, AND CARBIDE OF CALCIUM LICENSES.

15 licenses have been granted authorising the sale of Petrol, 7 that of Petroleum, and 1 Carbide of Calcium during 1909.

PUBLIC LAMPS.

The total number of public lamps amounts to 2,177, 2052 of which are lighted by gas under the Rostin System, the remaining 125 being lighted by electricity.

PARTICULARS REGARDING PARKS, OPEN SPACES, Etc.

OPEN SPACES.

	AREA.	DATE ACQUIRED.
1. Bruce Castle Park, Lordship Lane, Tottenham	20 acres.	25th June, 1892
2. "The Chestnuts" Recreation Ground, St. Ann's Road, South Tottenham (including Common Land)	13 ..	3rd May, 1898
3. Land in Marshes	122 ..	Between 1898 and July, 1905
4. "The Down Field" Recreation Ground, near Tottenham Hale about (i.e., Freehold Land 2 acres, late Lammas Land, 17½ acres.)	19½ ..	Sept. and Dec. 1900
5. "The Downhills" Recreation Ground (including 4 acres purchased from G.E.R. Company, March, 1905)	30¼ ..	Aug. 11, 1902
6. Land East side of River Lea, conveyed by Metropolitan Water Board under East London Water Works Company's Act, 1897	25 ..	March, 1905
Total	229¾ ..	

COMMONS.

	ACRES.	RDS.	PLS.	YDS.
1. Tottenham Green (East), High Road		2	31	24
2. Tottenham Green (West), High Road	1	2	6	4
3. Page Green, between High Road and Earlsmead Council School	1	2	8	26
4. Page Green Terrace, High Road, South Tottenham		2	35	13
5. West Green, at the junction of Philip Lane and West Green Road	1	0	0	0
6. West Green, near Green Lanes	2	1	8	27
7. Ducketts Green, Green Lanes	6	1	0	0
8. Common, High Road, between West Green Road and Seven Sisters Road			27	0
9. Common, opposite The Grove, High Road, South Tottenham		3	32	0
10. High Cross Common, High Road			31	7
	15	3	21	10

OTHER LANDS AND BUILDINGS.

	DATE PURCHASED.
1. The Council Buildings, The Green, Tottenham, which include the Council Chamber and General Offices, 1st and 2nd Class Swimming and Slipper Baths, Central Fire Station, Firemen's Quarters, Coroner's Court, and Mortuary; and in the rear (with an entrance from Clyde Road) the Central Depot, consisting of Stables, Cart Sheds, Workshops, Stores, etc.	(Opened for use November 2nd, 1905.)
The whole of the above buildings have been erected on the sites of the following properties, viz.:	
Eaton House, The Green Tottenham (Fr'ld) ...	21st Nov., 1892
Wilton House The Green, Tottenham (Fr'ld) ...	3rd Aug., 1899
"The Ferns," The Green ,Tottenham (Fr'ld) ...	25th Mar., 1901
Hatfield House, The Green, Tottenham (Fr'ld) ...	25th Dec., 1901
2. Sewage Outfall Works (part of), Markfield Road, South Tottenham (Fr'ld) ...	13th Dec., 1761
3. Bruce Castle, Lordship Lane, Tottenham (Fr'ld) ...	25th June, 1892
(part used as Branch Reading Rooms and for Museum purposes)	
4. Public Library, 395, High Road, Tottenham (Fr'ld) ...	16th Aug., 1894
5. Fire Station, Minster Road, South Tottenham ,Fr'ld) ...	23rd Feb., 1888
6. "The Chestnuts," St. Ann's Road, South Tottenham (Fr'ld) (part used as Branch Reading Rooms) ...	3rd May, 1898
7. Gas Testing Station, Beulah Place, Wood Green (Fr'ld)	19th Oct., 1886
8. In Tottenham Hale 9 acres, originally intended for the erection of Workmen's Dwellings under the Housing of the Working Classes Act, 1890 (Fr'ld) ...	29th Sept., 1900
9. Conway Road, Woodlands Park, Fire Station, Stables and General Depot (Fr'ld) ...	13th May, 1902
10. Refuse Destructor Buildings and Site for Electrical Generating Station (upwards of 4 acres), Down Lane ...	29th Sept., 1900
NOTE.—This Land originally formed part of 23½ acres acquired for a Recreation Ground, but owing to the difficulties experienced in securing a site for Refuse Destructor purposes, the Local Government Board sanctioned the use of this portion of the land for those purposes.	

METEOROLOGICAL STATION.

The local Meteorological Station is now recognised as belonging to the second order (normal Climatological Station) by the Meteorological Office; weekly and monthly reports are furnished to the Head Office, an analysis of which appears in the returns of the Registrar General, and the meteorological tables placed outside the Municipal Buildings should prove of considerable value to those interested in weather study, and in the influence exerted by weather upon special diseases.

Monthly Meteorological Statement for 1909.

	BAROMETER.			THERMOMETERS.						HYGROMETER.					RAINFALL.					SUNSHINE.			
	Mean.	Highest Reading.	Lowest Reading.	Maximum.		Minimum.		Earth 4ft. Mean.	Gross Mean.	Dry Bulb Mean.	Wet Bulb Mean.	Dew Point Mean.	Vapour Pressure Mean.	Humidity Mean %	Inches.	Number of Days.	Estimated Hours.	Amount of Heaviest Fall.	Day on which Heaviest Fall occurred.	Hours of Bright Sunshine.	Number of Sunless Days.		
				Highest.	Mean.	Lowest.	Mean.																
January	30·167	30·718	29·224	50·8	46·5	21·2	34·7	44·5	31·1	38·1	37·5	35·0	·218	89	0·70	11	24·0	0·17	7th	59·7	11		
February	30·130	30·575	29·380	55·8	43·2	31·4	21·0	41·9	26·9	35·9	35·0	33·2	·197	87	0·48	8	73·5	0·19	9th	74·4	8		
March	29·515	29·950	29·076	57·7	44·1	13·2	34·7	40·7	31·3	39·5	37·9	35·6	·217	87	2·61	25	136·5	0·40	6th	55·0	11		
April	29·982	30·512	29·579	70·0	59·0	29·2	40·4	45·6	36·0	49·5	44·5	42·3	·278	77	1·75	12	56·5	0·53	19th	230·4	1		
May	30·100	30·434	29·536	81·0	62·7	33·2	43·3	47·5	38·7	54·1	50·5	47·2	·335	80	1·57	11	36·0	0·46	24th	306·5	1		
June	29·955	30·351	29·352	70·2	60·9	39·7	48·6	54·2	45·6	54·3	52·4	50·6	·353	87	3·80	18	83·0	0·46	26th	106·1	4		
July	29·564	30·259	29·474	76·2	68·4	45·2	53·6	57·1	50·9	60·7	56·5	52·9	·405	76	2·97	18	69·7	1·12	27th	188·0	0		
August	29·994	30·285	29·433	85·0	71·4	47·5	54·3	59·9	50·7	62·8	59·1	56·0	·455	79	1·56	13	52·5	0·43	17th	232·6	4		
September	30·034	30·299	29·624	70·2	63·1	39·0	47·1	58·4	50·5	55·7	53·7	51·7	·405	87	2·55	21	112·5	0·37	4th	105·6	7		
October	29·810	30·280	29·379	65·6	58·6	31·4	47·9	56·6	45·1	53·1	51·2	47·7	·362	88	3·56	24	136·0	0·78	28th	77·2	10		
November	30·013	30·405	29·344	53·8	46·7	28·0	37·5	50·1	32·4	41·4	40·4	38·8	·265	92	0·76	9	33·5	0·33	29th	73·3	9		
December	29·686	30·396	28·728	54·5	44·6	25·0	36·7	45·1	31·7	40·7	40·0	39·0	·242	94	2·61	21	103·0	0·51	2nd	40·9	16		
	Highest recorded reading 30·718 on Jan. 4th. Lowest recorded reading 28·728 on Dec. 3rd.			Highest recorded shade temperature, 85·0 on Aug. 12.		Lowest recorded shade temperature, 13·2 on March 5.							Total rainfall, 24·92 inches.		Total wet days, 191.		Amounting to about 916·7.		Heaviest day's rainfall, 1·12 in. on July 27.		Total hours of bright sunshine, 1549·7.		82 sunless days.

STREAMS.

I am very pleased to be able to report that a considerable improvement has been effected and maintained in the condition of the streams and watercourses during the past year, indeed the County Surveyor and myself have come to a personal understanding, by means of which early and practical attention is given to any complaint upon the subject of streams and watercourses.

LECTURES, REPORTS, ETC., BY THE MEDICAL OFFICER OF HEALTH.

In addition to the written reports made to the Public Health Committee and the fortnightly printed ones to the Council, I have during the year, in conjunction with the Assistant School Medical Officer, given Lectures on Hygiene to the senior standards of the various schools. Moreover, leaflets have been issued on the following subjects:—

1. The precautions to be taken with regard to Phthisical patients ;
2. Directions as to Feeding and Management of Infants ; and precautions to be observed in order to avoid Summer Diarrhœa.
3. Brief instructions regarding Measles and Whooping Cough, etc., etc. ;
4. Instructions to be observed on the return of infectious cases from the M.A.B Hospitals ;
5. Report as to the necessity of providing special teachers and classes for mentally defective children.

In the lectures to school children, I endeavour in the Girls' Departments to lay particular stress upon the principles

underlying the proper feeding of children and the cleanliness of food and clothing, while in the Boys' Departments I take the opportunity of referring amongst other things to the danger of indulgence in alcohol and smoking.

TRAIN SERVICE.

There are altogether 10 stations in Tottenham, 3 on the Midland and Great Eastern Joint Railway, viz. :—South Tottenham, St. Ann's-road and Harringay Park, connecting this district with Southend, Tilbury, and Woolwich on one side and King's Cross, Moorgate-street and St. Pancras on the other; 2 on the Main Great Eastern Line from Liverpool Street, viz. : Tottenham Hale and Park; 1 West Green, on the Great Eastern Line to Palace Gates, and 4, viz. :—Stamford Hill, Seven Sisters, Bruce Grove, and White Hart Lane, connecting Tottenham with Liverpool Street on one hand and Enfield on the other.

THE TRAMWAY SYSTEM.

Electric cars run between this district and Wood Green, Enfield, Muswell Hill, Finchley, Finsbury Park, and Shore-ditch (*via* Stamford Hill and Kingsland Road), also between Tottenham and Waltham Cross (*via* Edmonton), as well as between Wood Green and the Alexandra Palace and Tottenham (*via* Lordship Lane). The service is a three minute one over most of the line, and the trams run from 4.0 a.m. till past midnight. Cars run frequently between Stamford Hill and Aldgate, Moorgate Street, London Docks (*via* Commercial Road) and Holborn, and also from Finsbury Park to Holloway, Islington, Moorgate Street, Holborn and Euston Road.

Both train and tram service leave much to be desired with regard to the cleanliness observed upon their cars; dirt and sputum are very frequently found in great abundance on the floor, and moreover the cars are, in the mornings and evenings, excessively crowded and improperly ventilated.

AMBULANCES.

The Council possesses two Ambulances, one suitable for the removal of ordinary infectious cases, and the other especially built for the removal of Small Pox patients; the former is occasionally used for the removal of "outside" cases of infectious disease to their own homes: in the ordinary way however, our infectious cases are removed to Hospital in the Metropolitan Asylums Board's Ambulances. I have to reiterate the opinion that it would at once be a gain in efficiency and a saving of expense if we were allowed to remove our own fever patients, as we do those suffering from Small Pox; the M.A.B. has, however, so far refused their consent to such a suggestion.

FREE PUBLIC LIBRARY AND BRANCHES.

The Central Library is situated at 395, High Road, a Branch Library at "The Chesnuts," St. Ann's Road, while a Reading Room (not much patronised) has been established at Bruce Castle for the convenience of the Lower Ward. The Library hours are 9 a.m. to 10 p.m.

When a case of infectious disease occurs in any house containing books borrowed from the Library, and which have been handled by the patient, such books are either disinfected or if necessary destroyed altogether.

PUBLIC INSTITUTIONS.

The North-Eastern Fever Hospital at the close of the year contained 306 patients (75 Tottenham residents) and 299 officials, the Prince of Wales's General Hospital 103 patients and 53 officials, the Jewish Home for Incurables, 78 patients (2 Tottenham residents) and 18 officials, and the Edmonton Workhouse 399 Tottenham inmates. The number of Tottenham persons receiving out-door relief at the end of the year was 1400.

MEDICAL EXAMINATIONS.

I have made a careful medical examination of all newly appointed school teachers and members of the Fire Brigade during the year, and have also visited all persons bringing claims against the Council on account of alleged accidental or other injuries.

INHABITED HOUSE DUTY.

A large number of inspections have been made under the Customs and Inland Revenue Act, 1890, on the application from owners for certificates exempting them from Inhabited House Duty. I have only granted such certificates where the houses have been so constructed as to afford suitable accommodation for those families or persons inhabiting them, having special regard to the sanitary requirements.

PUBLIC HEALTH LEGISLATION, 1909.

The Parliamentary Session of 1909 has not been fertile in Sanitary Legislation; The Housing and Town Planning Bill has, however, fortunately been added to the Statute Book, though it was not till the last days of November that

its final stage was reached. The measure contains many valuable provisions which should exercise a beneficial influence more especially on urban development in sanitation.

The Milk and Dairies Bill, which was promised in the King's Speech at the opening of the Session, and dealt with one of the most important questions of the hour, was withdrawn without having received any serious consideration, whilst the measure which was promised by Mr. Burns upwards of two years ago, for dealing with the pollution of rivers, and the recommendations of the Royal Commission on Sewage Disposal, has not even been laid before Parliament.

It is regrettable that no attempt has yet been made to harmonize and consolidate the numerous and as it would seem at times apparently contradictory provisions of the various Acts dealing with Public Health matters.

The sanction of the Local Government Board has at length been obtained to the adoption of Parts 3, 4 and 5 of the Public Health Acts Amendment Act, 1907, (with the exception of sections 38, 43 and 66) in the district.

The bye-laws made by the Council under sections 1 and 2 of the Employment of Children Act, 1903, were sanctioned by the Home Secretary in 1909, and are now enforced throughout the district.

SHORT RESUMÉ OF THE CHIEF VARIETIES
OF SANITARY WORK ORDINARILY
CARRIED OUT BY THE PUBLIC HEALTH
DEPARTMENT OF YOUR COUNCIL.

1. GENERAL SANITARY MEASURES, such as house to house inspection, remedying defective drainage and ventilation, having yards paved, ensuring the removal and destruction of House Refuse, having sewers flushed, overcrowding and smoke nuisances abated, walls, ceilings, etc., cleansed, objectionable Gipsy encampments removed, and various other kinds of nuisances abated.
2. Steps taken to prevent the spread of Infectious Diseases including notification, isolation, disinfection of houses, bedding, clothes, etc., tracing sources of infection, and sending information to employers and other Medical Officers of Health, etc.
3. Inspection of Factories, Workshops, Workplaces, and the homes of Outworkers, and causing any defects either in premises or conditions of work to be remedied.
4. Inspection of School premises, and diseased or defective children, as well as general superintendence and co-operation in the special Medical Inspection carried out under the provisions of Section 13 of the Education (Administrative Provisions) Act.
5. Visitation of houses in the poorer districts from which births have been notified, and giving suitable instructions in connection with such visitation.

6. Visitation of houses from which *infantile deaths* have been notified, or *deaths at any age from consumption* or other infectious disease. We now visit all houses from which cases of consumption have been notified to us, and give advice with regard to the disposal of sputum, ventilation, etc., and see that all necessary disinfection is periodically carried out.
7. Ensuring, as far as the Law gives us power to do so, by inspection and the taking of samples, the good quality of the food sold for the use both of children and adults.
8. Provision of assistance for local Medical Practitioners in the diagnosis of infectious diseases, by means of the Bacteriological and Chemical Laboratory, in which samples of air, water, milk, etc., are also examined both chemically and bacteriologically.
9. Enforcement of the provisions of the bye-laws made under sections 1 and 2 of The Employment of Children Act, 1903, and sanctioned by the Home Secretary in January, 1909.

SUMMARY OF RECOMMENDATIONS BY THE MEDICAL OFFICER OF HEALTH.

1. Provision for (*a*) the Sanatorium treatment of a limited number of Consumptives in the early stage of the disease, and (*b*) the isolation of all who are in the late stages of the disease, but more especially of such late cases as under present conditions sleep in a room also occupied by other persons; such cases are a grave danger to the Community.

2. The compulsory notification of Consumption (which would furnish us with a suitable opportunity for instruction and disinfection in *all* suitable cases) ; such notification is now compulsory in Glasgow, Edinburgh, and Sheffield, and several other towns are proposing to follow the example of the above trinity.
3. Provision of your own Infectious Diseases Hospital, in which—in addition to the patients now isolated by Sanitary Authority—arrangements could be made for Class *b* of the Consumptives mentioned above, as well as for the isolation of special cases of Puerperal Fever, Erysipelas, etc. While your population, and consequently the cases of infectious disease to be isolated, were comparatively few, it was probably more economical to use—as you have done—Hospitals of the Metropolitan Asylums Board, but now that those conditions no longer prevail, it would, in my opinion, be desirable, as well as economical, to provide and maintain your own hospital accommodation, more especially in view of the increased charge made for the reception of all infectious patients beyond the 100 arranged for by the award of the Local Government Board in 1894.
4. The appointment of a special Food Inspector, so that in addition to the ordinary inspections of food now carried on in the course of general sanitary work, an efficient supervision might be exercised over the actual slaughtering of animals, thus ensuring the condemnation of tuberculous or otherwise diseased carcasses or portions thereof.

5. The provision of one or more model Crèches, preferably in connection with the *practical* teaching of hygiene and infant management in schools; the Day Nurseries at present existing in the District reflect anything but credit upon those responsible for their management.
- 6.—The construction of a Relief Sewer for the Harringay District so as to obviate the periodical recurrence of flooding.
7. Combined Municipal and Legislative endeavour to abate smoke and dust nuisances, and in the latter connection to secure the more frequent watering of roads, and the nightly washing of streets, courts and alleys, more particularly in dry weather; the adoption of tar macadam paving in the poorer and more populous quarters of the District is also advisable, as well as a special watering of roads and washing of pavements on the occasion of the big football matches at the Tottenham Hotspurs' Ground.

* * * * *

It is most advisable that it should be made illegal to shake mats, carpets, or other dust-laden materials on the public streets or footpaths after 8 a.m.; the dust arising from such articles when shaken contains innumerable germs, many of them doubtless pathogenic.



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